HOSPITAL FORMULARY

OF THE

DEPARTMENT OF PUBLIC CHARITIES AND CORRECTION

OF THE

CITY OF NEW YORK.

FOURTH EDITION, REVISED.

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Public Charities and Correction.

THOMAS S. BRENNAN,

HENRY H. PORTER,

CHARLES E. SIMMONS, M. D.

PREFACE.

In preparing this new edition of the HOSPITAL FORMULARY for the press, the alterations, which have been made from time to time in various formulæ, have been taken into account, and the whole series has been carefully revised and completed. As in previous editions, the several preparations have been arranged in different classes, corresponding to their form and use. Since the book is to be used not only by the Physicians and Apothecaries of the Department, but to some extent also by the trained nurses, orderlies and attendants, it was deemed advisable to give all directions and doses in English, the ingredients alone being given in the usual Latin terms.

It must not be supposed that all the mixtures and compounds quoted in this Formulary are at all times prescribed or kept in stock for administration to the sick. Indeed, the custom, at one time prevailing, of prescribing by rote, and administering one and the same "house mixture" to a number of patients regardless of their individual differences or idiosyncracies, is not practiced in this Department, unless it has been ascertained by careful observation, that such a course, in any particular case, is advisable and appropriate.

Experience having shown that the notes, which had been inserted here and there in previous editions, were found to be of practical value, they have been somewhat extended in the present edition, and it is hoped that they may prove of advantage to the medical and pharmaceutical staffs of the Department.

In dispensing the several preparations or compounds quoted in this book, or those otherwise prescribed by the physicians of this Department, the established Rules and Regulations regarding the methods of labelling, the kinds of prescription vials, the quantities which may be dispensed at one time, the mode of keeping the medicines, etc., etc., must be carefully observed.

It is requested that the heads of the different Institutions, the Medical Boards and Staffs attached to the latter, and the Apothecaries of the Department, notify the undersigned editor of any needed corrections, or of any desired alterations or additions to be embodied in a subsequent edition.

By order of the Board,

CHARLES RICE, Ph. D.,
Chemist of the
Department of Public Charities
and Correction.

General Drug Department,
Feb 12, 1889.

FORMULARY.

1. MIXTURES FOR INTERNAL USE.

A. Mixtures for Diseases of the Respiratory Organs.

1. Bronchitis Mixture. (Char. Hosp.)

℞ Magnesii Sulphatis ℥ 2
Spir. Ætheris Nitrosi
Syr. Limonis āā fl ℥ 1
Aquæ q. s. ad fl ℥ 8

Dissolve and mix. *Dose*—A tablespoonful every 2 or 3 hours. In acute and subacute bronchitis.

(Dr. Geo. A. Dixon.)

2. Bronchitis Mixture, "Chronic." (Char. Hosp.)

℞ Spir. Ætheris Comp. fl ℥ 5
Ext. Eriodictyi Fl.
Ext. Grindeliæ Rob. Fl. āā ℥ 1
Ext. Pruni Virg. Fl. q. s. ad fl ℥ 4

Mix. *Dose*—A tablespoonful every 3 hours. In chronic bronchitis. (*Dr. Geo. A. Dixon.*)

3. Cough Mixture.

℞ Syr. Tolutani
Syr. Pruni Virginianæ
Tinct. Hyoscyami
Spir. Ætheris Comp.
Aquæ āā part. æqu.

Mix. *Dose*—A teaspoonful. *(Dr. E. G. Janeway.)*

4. Cough Mixture for Adults. (Inf. Hosp.)

℞. Ammonii Chloridi ℥ 1
Spir. Ætheris Comp. fl ℥ 6
Syr. Pruni Virginianæ fl ℨ 2
Aquæ q. s. ad fl ℨ 8

Dissolve and mix. *Dose*—A teaspoonful.

5. Cough Mixture for Infants. (Inf. Hosp.)

℞ Tinct. Opii Camphoratæ
Spir. Ammoniæ Aromatici
Syr. Pruni Virginianæ āā fl ℨ 1
Ext. Ipecacuanhæ Fl. ♏ 30
Aquæ q. s. ad fl ℨ 8

Mix. *Dose*—A teaspoonful.

6. Cough Mixture, Loomis. (Bell. Hosp.)

℞ Ammonii Carbonatis ℥ 2
Infusi Pruni Virginianæ fl ℨ 8

Dissolve and mix. *Dose*—A tablespoonful.

7 Emulsio Expectorans.

℞ Morphinæ Sulphatis gr. 1
Syr. Scillæ
Syr. Ipecacuanhæ āā fl ℨ 1
Syr. Tolutani
Syr. Pruni Virginianæ āā fl ℥ 6
Tinct. Benzoini Comp.
Tinct. Sanguinariæ āā fl ℥ 2
Aquæ q. s. ad fl ℨ 5

Dissolve and mix. *Dose*—A teaspoonful.

8. Mistura Ammonii Carbonatis. (Bureau O. D. P.)

℞ Ammonii Carbonatis
Ext. Glycyrrhizæ — āā gr. 30
Syr. Ipecacuanhæ — fl ℥ 2
Syr. Senegæ
Syr. Tolutani — āā fl ℥ 4
Aquæ Cinnamomi — q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful, for children.

(Dr. G. H. Bosley.)

9. Mistura Ammonii Chloridi. (Bureau O. D. P.)

℞ Ammonii Chloridi
Potassii Chloratis — āā gr. 30
Syr. Senegæ — fl ℥ 4
Syr. Ipecacuanhæ — fl ℥ 3
Syr. Tolutani — fl ℥ 5
Extr. Glycyrrhizæ — gr. 60
Aquæ Cinnamomi — q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful, for children.

(Dr. G. H. Bosley.)

10. Mistura Antasthmatica. *(Fothergills'.)*

℞ Ammonii Iodidi — gr. 120
Ammonii Bromidi — gr. 180
Syr. Tolutani — fl ℨ 3
Tinct. Lobeliæ — fl ℨ 5

Dissolve and mix. *Dose*—A teaspoonful.

11. Mistura Bechica.

"Cough Mixture, Steurer."

℞ Tinct. Opii Camphoratæ
Tinct. Hyoscyami
Syr. Pruni Virginianæ
Syr. Tolutani — *āā* fl ℥ 4

Mix. *Dose*—A teaspoonful. *(Dr. J. A. Steurer.)*

12. Mistura Bronchi. (Bureau O. D. P.)

℞ Ammonii Carbonatis — gr. 10
Syr. Ipecacuanhæ — fl ℥ 1½
Tinct. Opii Camphoratæ — fl ℥ 1
Syr. Pruni Virginianæ — ♏ 30
Aquæ — q. s. ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful for children.
(Dr. A. R. Robinson.)

13. Mistura Chloroformi Hydrocyanica. (Bell. Hosp,)

Tingley's Cough Mixture.

℞ Ac. Hydrocyan. Dil. — fl ℥ 2
Spir. Chloroformi — fl ℨ 1
Syr. Pruni Virg. — q. s. ad fl ℨ 8

Mix. *Dose*—A teaspoonful.

14. Mistura contra Tussim.

"Host" Cough Mixture.

℞ Tinct. Hyoscyami
Tinct. Opii Camphoratæ
Syr. Scillæ
Syr. Tolutani — *āā* part. æqu.

Mix. *Dose*—A teaspoonful.

15. Mistura Ergotini. (Char. Hosp.)

℞		
	Ergotini	gr. ½ to 1
	Ext. Belladonnæ Fl.	♏ ½ to 1
	Ol. Terebinthinæ	♏ 10

Mix. Put in 1 capsule. Repeat every 4 hours in hæmoptysis.—One every night, in night sweats.

(Dr. J. Blake White.)

Note.—Ergotin, in the sense of the preparation above directed, is not a proximate principle of definite chemical composition, but a purified extract of ergot, freed as much as possible from inert and useless constituents, and containing as much as possible of the active principles in a condition to form a clear solution in water. The less burdened it is with substances which are precipitated by water, the less liable will it be to produce abscesses, etc., when used hypodermically. Bonjean's ergotin is prepared by adding alcohol to an aqueous extract of ergot of syrupy consistence, filtering and evaporating the solution. The "purified ergotin" of commerce is prepared by a similar method In place of "ergotin," the officinal "Extractum Ergotæ" may be prescribed with equally good effect.

16. Mistura Expectorans. (I) (Bureau O. D. P.)

℞		
	Ammonii Carbonatis	gr. 16
	Extr. Senegæ Fl.	
	Extr. Scillæ Fl.	
	Tinct. Tolutanæ	*āā* fl ℥ 2
	Aquæ	fl ℥ 4
	Syrupi	q. s. ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful.

17. Mistura Expectorans, "Children." (Bureau O. D. P.)

℞ Syr. Senegæ
Syr. Pruni Virginianæ
Syr. Acaciæ āā fl ℥ 1

Mix. *Dose*—A teaspoonful.

Note.—When the cough is very troublesome, 40 grains of Chloride of Ammonium, and 1½ fluid drachms of Camphorated Tincture of Opium are usually added to the above. In cases of some standing, 40 grains of Iodide of Potassium may be substituted for the Chloride of Ammonium.

(Dr. T. H. Holgate)

18. Mistura Expectorans Hydrocyanica. (Char. Hosp.)

℞ Acidi Hydrocyanici Dil.	fl	℥ 1
Tinct. Sanguinariæ	fl	℥ 4
Syr. Senegæ	fl	℥ 4
Potassii Bromidi		℥ 2
Tinct. Opii Camphoratæ	fl	ℨ 1
Syr. Tolutani q. s. ad	fl	ℨ 4

Dissolve and mix. *Dose*—A teaspoonful every 2 hours for adults. *(Dr. W. B. Vanderpoel.)*

19. Mistura Expectorans, "Stokes."

STOKES' EXPECTORANT.

℞ Ammonii Carbonatis	gr.	32
Extr. Senegæ Fl.		
Extr. Scillæ Fl.	āā fl	℥ 1
Tinct. Opii Camphoratæ	fl	℥ 6
Aquæ	fl	℥ 4
Syrupi Tolutani q. s. ad	fl	ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

20. Mistura Expectorans, "Struma." (Bureau O. D. P.)

℞	Ammonii Chloridi	gr. 45
	Syrupi Ferri Iodidi	♏ 45
	Syrupi Senegæ	
	Syrupi Pruni Virginianæ	
	Syrupi Acaciæ	*āā* fl ℥ 1
	Olei Morrhuæ	fl ℥ 3

Dissolve and mix. *Dose*—1½ teaspoonfuls every 3 hours to a child of 4 years, in bronchitis with struma.

(Dr. T. H. Holgate.)

21. Mistura Extracti Opii. (Bell. Hosp.)

GIBBONS' SPECIAL.

℞	Extracti Opii	
	Extracti Belladonnæ	*āā* gr. 2
	Chloroformi Purificati	♏ 15
	Syrupi	fl ℥ 1
	Aquæ	q. s. ad fl ℥ 2

Dissolve and mix. *Dose*—A teaspoonful.

22. Mistura Glonoini.

MIXTURE OF NITROGLYCERIN.

℞	Spiritus Glonoini	gtt. 1
	Syrupi	
	Aquæ	*āā* fl ℥ 2

Mix. *One dose,* to be taken every 4 hours, in angina pectoris, asthma, etc. It is usually preceded by a short course of camphor water.

Note.—Spiritus Glonoini is an alcoholic solution of nitroglycerin, containing 1 per cent., by weight, of the latter. *(See National Formulary.)*

Taking into consideration the specific gravity of nitroglycerin, which is about 1.600 at 15° C., and of alcohol, which is 0.820, a one per cent. solution by weight is about equal to one made by mixing 1 volume of nitroglycerin with 194 volumes of alcohol. One grain of the 1 per cent. solution, of course, contains 1-100 grain of nitroglycerin; but one minim contains only about 1-195 minim, or 1-125 grain of nitroglycerin.

23. Mistura Glycyrrhizæ. (Bureau O. D. P.)

℞ Ammonii Chloridi
Extr. Glycyrrhizæ āā ℥ 2
Tinct. Opii Camphoratæ fl ℥ 2
Aquæ fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. D. Brekes.)

24. Mistura Extracti Glycyrrhizæ Composita.

(Bureau O. D. P.)

Brown Mixture (modified).

℞ Extr. Glycyrrhizæ Fl. fl ℥ 3
Vini Antimonii fl ℥ 2
Spiritus Ætheris Nitrosi fl ℥ 1
Tinct. Opii Camphoratæ
Syrupi āā fl ℥ 4
Aquæ q. s. ad fl ℥ 4

Mix. *Dose*—1 to 4 teaspoonfuls.

Note.—The above formula is followed in the Public Dispensaries of the Department. The formula of the U. S. Ph. 1880 prescribes pure extract of liquorice, of which about 1 drachm is required for a 4 oz. mixture.

25. Mistura Hydrobromica.

℞	Acidi Hydrobromici Dil. (10%)	♏ 30
	Spir. Chloroformi	♏ 20
	Syr. Scillæ	fl ℥ 1
	Aquæ	q. s. ad fl ℨ 1

Mix. *One dose.* To be taken twice or thrice daily, for cough.

26. Mistura Hydrocyanica. (Bell. Hosp.)

℞	Acidi Hydrocyanici Diluti	♏ 32
	Morphinæ Sulphatis	gr. 1
	Syrupi Tolutani	
	Aquæ	*āā* fl ℥ 1

Dissolve and mix. *Dose*—A teaspoonful.

Note.—This mixture was formerly directed to contain cyanide of potassium instead of hydrocyanic acid. But the commercial cyanide of potassium always contains a considerable proportion of other potassium salts, chiefly the carbonate. Alkaline carbonates, however, as well as free alkalies, precipitate alkaloids. Hence the whole of the morphine was usually precipitated by the alkaline cyanide of potassium, and the patient was liable to take the whole of it with the last dose.

27. Mistura Hydrocyanica, "Ch. H."

℞	Potassii Cyanidi	gr. 2
	Acidi Citrici	gr. 4
	Vini Antimonii	fl ℥ 2
	Syr. Tolutani	
	Mucilaginis Acaciæ	*āā* fl ℥ 4
	Aquæ	q. s. ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful.

Note.—Cyanide of potassium is incompatible with the tartar emetic contained in the wine of antimony, and precipitates it. The precipitation is prevented by the addition of citric acid.

28. Mistura Hyoscyami Composita.

℞ Acidi Hydrocyanici Diluti
Chloroformi Purificati āā ♏ 30
Tinct. Hyoscyami fl ℥ 1
Aquæ Camphoræ q. s. ad fl ℥ 2

Mix. *Dose*—A teaspoonful.

29. Misturæ Olei Morrhuæ et Cinchonæ. (Char. Hosp.)

℞ Olei Morrhuæ
Elixir Cinchonæ āā fl ℥ 2

Mix. *Dose*—2 to 4 teaspoonfuls thrice daily. In bronchitis, etc. *(Dr. W. B. Vanderpoel.)*

30. Mistura Pectoralis. (Gouv. Hosp.)

℞ Antimonii et Potassii Tart.
Morphinæ Sulphatis āā gr. ½
Ext. Cubebæ Fl. ♏ 16
Syrupi Tolutani fl ℥ 2

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. C. F. Stokes.)

31. Mistura Pertussis, "Children." (Bureau O. D. P.)

℞ Sodii Bromidi
Ferri et Quininæ Citratis āā gr. 90
Syrupi Senegæ
Syrupi Pruni Virginianæ
Syrupi Acaciæ āā fl ℥ 1

Dissolve and mix. *Dose*—A teaspoonful for a child of 4 years. *(Dr. T. H. Holgate.)*

32. Mistura Potassii Chloratis. (Bureau O. D. P.)

℞ Potassii Chloratis
Ammonii Chloridi āā gr. 60
Ext. Glycyrrhizæ Fl. fl ℥ 2
Aquæ q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. H. W. Wheelock.)

33. Mistura Potassii Iodidi et Hoffmanni. (Bureau O.D.P.)

℞ Potassii Iodidi ℥ 3
Tinct. Tolutanæ
Ext. Pruni Virginianæ Fl. āā fl ℥ 1
Syrupi fl ℨ 1
Spiritus Ætheris Comp. fl ℨ 2
Aquæ q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. E. G. Janeway.)

34. Mistura Potassii Iodidi Composita. (Bureau O. D. P.)

℞ Ammonii Carbonatis
Potassii Iodidi ℥ 2
Syrupi Pruni Virginianæ
Spiritus Ætheris Comp. āā fl ℨ 1½

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. W. H. Katzenbach.)

35. Mistura Sanguinariæ Expectorans.

℞ Tinct. Sanguinariæ fl ℥ 1
Tinct. Opii Camphoratæ
Syr. Scillæ
Syr. Tolutani āā fl ℥ 2
Aquæ q. s. ad fl ℨ 2

Mix. *Dose*—A teaspoonful.

(Dr. J. S. Newburgh.)

36. Mistura pro Asthma. (Bell. Hosp.)

ASTHMA MIXTURE.

℞ Liq. Morphinæ Sulph. "U. S."
Spir. Ætheris Comp. āā part æqu.

Mix. *Dose*—A teaspoonful.

37. Mistura Sedativa, "O. D. P." (Bureau O. D. P.)

℞ Acidi Hydrocyanici Diluti
Chloroformi Purificati āā fl ℥ 1
Tinct. Hyoscyami
Syrupi Tolutani
Aquæ Camphoræ
Mucilaginis Acaciæ āā fl ℨ 1

Mix. *Dose*—A teaspoonful.

(Dr. W. H. Katzenbach.)

38. Mistura Tolutana Acida.

℞ Tinct. Tolutanæ fl ℥ 2
Acidi Acetici fl ℥ 1½
Syrupi Senegæ fl ℥ 4
Syr. Pruni Virginianæ q. s. ad fl ℥ 2

Mix. *Dose*—A teaspoonful.

39. Mistura Tussis. (Bureau O. D. P.)

℞ Tinct. Nucis Vomicæ fl ℥ 2
Vini Ipecacuanhæ fl ℥ 2½
Syrupi Sarsparillæ Comp.
Syrupi Senegæ āā fl ℨ 1½

Mix. *Dose*—A teaspoonful for children.

(Dr. W. P. Ackerman.)

40. Oleum Morrhuæ Phosphoratum. (Bell. Hosp.)

℞		
	Olei Phosphorati (U. S. Ph.)	gr. 100
	Ætheris Fortioris	fl ℥ 2
	Olei Morrhuæ	q. s. ad fl ℨ 16

Mix. *Dose*—1 to 4 fluidrachms, as may be directed. 233 minims of the mixture, or, practically, ½ fluid ounces contain $\frac{1}{30}$ grain of phosphorus.

41. Phthisis Cough Mixture. (Char. Hosp.)

℞		
	Codeinæ	gr. 3 to 6
	[*vel* Morphinæ Sulph.	gr. 2 to 4]
	Acidi Hydrocyanici Dil.	gtt. 20
	Chloroformi Purificati	♏ 20
	Syr. Tolutani	fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful every 4 hours, if necessary. To allay cough in phthisis.

(Dr. J. Blake White.)

42. Spiritus Duo. (Char. Hosp.)

℞		
	Spir. Ætheris Comp.	
	Tinct. Lavand. Comp.	āā part æqu.

Mix. *Dose*—A teaspoonful.

43. Syrupus Ammonii Chloridi. (Bureau O. D. P.)

℞		
	Ammonii Chloridi	℥ 1
	Syrupi Tolutani	fl ℨ 2

Dissolve and mix. *Dose*—16 drops every hour. For an infant of 3 months, with acute bronchitis.

(Dr. J. Lewis Smith.)

44. Syrupus pro Bronchitide. (Bureau O. D. P.)

℞ Syr. Ipecacuanhæ
Spir. Ætheris Nitrosi āā fl ℥ 2
Olei Ricini fl ℥ 3
Syrupi Tolutani fl ℨ 1

Mix. "Shake the bottle before dispensing." *Dose*—A teaspoonful every 2 or 3 hours. For a child of 2 to 3 years, with acute bronchitis. *(Dr. J. Lewis Smith.)*

45. Ward Expectorant. (Bell. Hosp.)

℞ Mist. Glycyrrhizæ Comp.
Mist. Expectorant. Stokes āā fl ℨ 2

Mix. *Dose*—A teaspoonful.

46. Whooping Cough Mixture. (Inf. Hosp.)

℞ Acidi Nitrici Diluti fl ℥ 1
Syr. Pruni Virginianæ fl ℥ 4
Aquæ fl ℨ 2

Mix. *Dose*—A teaspoonful.

B.—TONIC MIXTURES.

47. Ginger Tonic. (Bureau O. D. P.)

℞ Tinct. Zingiberis
Tinct. Capsici — *āā* fl ℥ ½
Tinct. Gentianæ Co. — fl ℥ 3

Mix. *Dose*—A teaspoonful. *(Dr. B. Symonds.)*

48. Lemonade. (Char. Hosp.)

℞ Acidi Citrici — gr. 90
Spir. Limonis — fl ℥ 2
Syrupi — fl ℥ 4
Aquæ — q. s. ad fl ℥ 16

Dissolve and mix. *Dose*—Ad libitum.

49. Lemon Tonic. (Char. Hosp.)

"Sour Drink."

℞ Cinchoninæ Sulphatis
Acidi Citrici — *āā* gr. 30
Tr. Ferri Chloridi — ♏ 30
Syrupi — fl ℥ 1½
Aquæ — q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

50. Loomis' Tonic.

℞ Quininæ Sulphatis — gr. 15
Tr. Ferri Chloridi — fl ℥ 2
Spir. Chloroformi — fl ℥ 3
Aquæ — fl ℥ 1
Glycerini — q. s. ad fl ℥ 2

Dissolve and mix. *Dose*—A teaspoonful.

51. Mistura Acidi Muriatici. (Bureau O. D. P.)

℞ Acidi Hydrochlorici ♏ 45
Tinct. Gentianæ Comp. fl ℥ 2
Aquæ fl ℥ 2

Mix. *Dose*—A teaspoonful.

52. Mistura Cinchonæ Acida. (Char. Hosp.)

℞ Ext. Cinchonæ Fl. fl ℥ 1
Acidi Sulphurici Arom. fl ℥ 2
Aquæ q. s. ad fl ℥ 8

Mix. *Dose*—A tablespoonful. (*Dr. H. J. Garrigues.*)

53. Mistura Cinchoninæ Sulphatis. (Bureau O. D. P.)

℞ Cinchoninæ Sulphatis gr. 60
Acidi Sulphurici Diluti q. s.
Aquæ fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

54. Mistura Cocæ Tonica. (Char. Hosp.)

℞ Ext. Erythroxyli Fl. fl ℥ 2
Tinct. Cinchonæ Co. fl ℥ 1

Mix. *Dose*—1 to 3 teaspoonfuls, in a little water.
(*Dr. Alex. W. Stein.*)

55. Mistura Ferri Chloridi. (Ins. As.)

℞ Tinct. Ferri Chloridi
Tinct. Nucis Vomicæ ăă fl ℥ 1
Syrupi Hypophosphitum fl ℥ 8
Aquæ q. s. ad fl ℥ 16

Mix. *Dose*—2 teaspoonfuls.

56. Mistura Ferri Composita.

GRIFFITH'S MIXTURE.

℞ Ferri Sulphatis		gr. 20
Potassii Carbonatis		gr. 25
Myrrhæ		
Sacchari	āā	℥ 1
Tinct. Lavandulæ Comp.	fl	℥ 4
Aquæ Cinnamomi	q. s. ad fl	℥ 8

Dissolve and mix. *Dose*—1 to 2 fluid ounces.

Prepare as directed by U. S. Pharm. of 1880. The officinal formula directs Spirit of Lavender. In the practice of this Department, this is usually replaced by the Compound Tincture of Lavender.

Note.—If this mixture is to be kept in stock, the Sulphate of Iron is to be left out, and the remaining mixture made up only to 7 1-2 fluid ounces, or a multiple thereof. When it is to be dispensed, say in quantities of four fluid ounces, the following proportions are required:

Sulphate of Iron	gr. 10
Water	fl dr. 2

Dissolve, and add

Stock mixture enough to make fl oz. 4.

57. Mistura Ferri et Bismuthi.

℞ Ferri et Bismuthi Citratis		gr. 60
Aquæ	fl	℥ 1

Dissolve and mix. *Dose*—A teaspoonful. In dyspepsia, gastric intolerance of phthisis, etc.

Note.—Citrate of Iron and Bismuth is a compound containing equal parts by weight of Citrate of Iron and Ammonium and Citrate of Bismuth and Ammonium. It is supplied in form of scales, and may also be administered in pills.

58. Mistura Ferri et Cinchoninæ. (Bureau O. D. P.)

℞	Cinchoninæ Sulphatis	gr. 60
	Tinct. Ferri Chloridi	fl ℥ 2
	Aquæ	q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

59. Mistura Ferri et Lactis.

℞	Syrupi	fl ℥ 2
	Lactis Recentis	fl ℨ 2
	Tinct. Ferri Chloridi	q. s.

To the mixture of syrup and milk, prepared at the bedside, add the prescribed dose of tincture of iron, mix quickly and administer it. The taste of the iron is completely covered by the vehicle.

60. Mistura Ferri et Magnesiæ. (Char. Hosp.)

℞	Ferri Sulphatis	gr. 30
	Magnesii Sulphatis	℥ 4
	Acidi Sulphurici Dil.	fl ℨ 1
	Syr. Pruni Virginianæ	fl ℨ 4
	Aquæ	q. s. ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful in water.

(*Dr. Chas. W Allen.*)

61. Mistura Ferri et Quininæ.

℞	Quininæ Sulphatis	gr. 30
	Tinct. Ferri Chloridi	fl. ℥ 2
	Aquæ	q. s. ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful.

62. Mistura Ferri et Quininæ Citratis. (Ins. As.)

℞	Ferri et Quininæ Citratis	℥ 3
	Tinct. Nucis Vomicæ	fl ℥ 5
	Syrupi Hypophosphitum	fl ℨ 8
	Aquæ	q. s. ad fl ℥16

Dissolve and mix. *Dose*—A teaspoonful.

63. Mistura Ferri et Strychninæ. (Bell. Hosp.)

℞	Strychninæ Sulphatis	gr. 1
	Ferri et Quininæ Citratis	℥ 3
	Ferri Pyrophosphatis	℥ 2
	Tinct. Gentian. Comp.	
	Aquæ	*āā* fl. ℨ 4

Dissolve and mix. *Dose*—2 teaspoonfuls.

64. Mistura Ferri Phosphorica. (Bureau O. D. P.)

℞	Tinct. Ferri Chloridi	
	Acidi Phosphorici Dil.	
	Syrupi	
	Aquæ	*āā* fl ℨ 1

Mix. *Dose*—A teaspoonful.

(Dr. B. Symonds)

65. Mistura Hypophosphitum. (Char. Hosp.)

℞	Liq. Sodii Arsenitis	fl ℨ 2
	Syr. Hyphosphitum Co. q. s. ad	fl ℨ 4

Mix. *Dose*—A teaspoonful in water, after each meal.

(Dr. J. Blake White.)

Note.—The rules of this Department forbid the purchase of any nostrums or proprietary preparations, of which the exact formula is unknown. In the case of Compound Syrup of Hypophosphites, the preparation of the *National Formulary* will be supplied.

66. Mistura Nigra. (Bureau O. D. P.)

℞ Ferri et Ammonii Citratis gr. 60
Tinct. Cinchonæ Comp. fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

67. Mistura Olei Morrhuæ Phosphorica. (Bureau O.D.P.)

℞ Tinct. Ferri Chloridi
Acidi Phosphorici Dil. *āā* fl ℥ 1
Olei Morrhuæ q. s. ad fl ℥ 16

Mix. *Dose*—2 to 4 teaspoonfuls.

68. Mistura pro Anæmia. (Bureau O. D. P.)

℞ Ammonii Chloridi ℥ 2
Tinct. Ferri Chloridi fl ℥ 4
Glycerini fl ℥ 1
Aquæ q. s. ad fl ℥ 3

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. W. H. Katzenbach.)

69. Mistura Pyrophosphatis. (Ins. As.)

℞ Ferri Pyrophosphatis gr. 150
Tinct. Nucis Vomicæ ♏ 200
Hydrargyri Bichloridi gr. 1
Tinct. Cinchonæ Comp.
Syrupi *āā* fl ℥ 5

Dissolve and mix. *Dose*—2 tablespoonfuls.

70. Mistura Quininæ Dulcis.

℞ Quininæ Sulphatis
Glycyrrhizini Ammoniati (U. S. Ph.) } āā gr. 16
Elixir Aromatici fl ℥ 1

Dissolve the Ammoniated Glycyrrhizin in the Aromatic Elixir, and suspend in it the Sulphate of Quinine. The latter should not be dissolved with the aid of an acid, since this would precipitate the glycyrrhizin.

Dose—A teaspoonful. *(Dr. L. Curtis.)*

71. Mistura Strychninæ.

Hall's Strychnine Mixture, (modified.)

℞ Strychninæ Acetatis gr. 1
Tinct. Cardamomi Comp. fl ℥ ½
Alcohol
Aquæ āā fl ℥ 2½
Syrupi q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

72. Mistura Tonica. (Bell. Hosp.)

"Special Tonic."

℞ Quininæ Sulphatis gr. 30
Tinct. Nucis Vomicæ
Tinct. Ferri Chloridi āā ♏ 160
Acidi Phosphor. Dil. fl ℥ 1
Syrupi q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

73. McCann's Tonic.

℞ Liquoris Ferri et Quininæ Citratis (U. S Ph.) }
Tinct. Nucis Vomicæ āā fl ℥ 2
Syr. Hypophosphitum fl ℨ 3

Mix. *Dose*—A teaspoonful before meals.

(Dr. B. H. McCann.)

74. "Phthisis Tonic."

℞ Tinct. Zingiberis fl ℥ 1
Sodii Bicarbonatis ℥ 2
Tinct Gentian. Comp. q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. A. L. Loomis.)

75. Smith's Bitters.

℞ Tinct. Cinchonæ Comp.
Tinct. Gentianæ Comp. āā fl ℨ 1

Mix. *Dose*—A teaspoonful.

76. Thompson's Tonic.

℞ Ferri et Ammonii Citratis gr. 64
Acidi Hydrochlorici ♏ 30
Glycerini fl ℨ 1½
Aquæ q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

77. Ward Iron, I. (Bell. Hosp.)

℞ Tinct. Ferri Chloridi
Acid. Phosphor. Dil. āā fl ℥ 2
Syrupi q. s. ad fl ℨ 8

Mix. *Dose*—A teaspoonful.

78. Ward Iron, II. (Char. Hosp.)

℞ Tinct. Ferri Chloridi
Syrupi — *āā* fl ℥ 1
Aquæ — fl ℥ 2

Mix. *Dose*—A teaspoonful.

79. Ward Tonic. (Bell. Hosp.)

℞ Ferri et Quininæ Citr. — ℥ 4
Strychninæ Acetatis — gr. ½
Glycerini — fl ℥ 4
Aquæ Cinnamomi — q. s. ad fl ℥ 16

Dissolve and mix. *Dose*—A teaspoonful.

80. Ward Tonic. *(Fothergill's.)* (Char. Hosp.)

℞ Quininæ Sulphatis — gr. 16
Strychninæ Sulphatis — gr. ½
Potassii Citratis — gr. 90
Tinct. Ferri Chloridi — fl ℥ 5
Syrupi — fl ℥ 1
Aquæ — q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful.

C.—MIXTURES FOR DISEASES OF THE DIGESTIVE ORGANS.

81. Diarrhœa Mixture. (Hart's Isl. Hosp.)

℞		
	Tinct. Capsici	fl ℥ 1
	Spir. Menthæ Pip.	fl ℥ 2
	Tinct. Opii	fl ℥ 3
	Tinct. Catechu Comp.	
	Tinct, Kino	
	Tinct. Krameriæ	
	Spir. Camphoræ	
	Aquæ	*āā* fl ℥ 4

Mix. *Dose*—30 to 60 minims.

82. Diarrhœa Mixture, Acid. (Char. Hosp.)

℞		
	Acid. Sulphur. Arom.	
	Tinct. Opii	*āā* fl ℥ 2
	Aquæ	q. s. ad fl ℨ 3

Mix. *Dose*—A fluidrachm every 4 hours, in water.

(Dr. W. B. Vanderpoel.)

83. Diarrhœa Mixture, Infants.

℞		
	Tinct. Opii Deodorat.	gtt. 16
	Bismuth, Subnitrat.	℥ 2
	Syrupi	fl ℥ 2
	Mist. Cretæ	q. s. ad fl ℨ 2

Mix. Shake the bottle before dispensing. *Dose*—A teaspoonful every 3 hours to an infant of one year, in acute entero-colitis.

(Dr. J. Lewis Smith.)

84. Diarrhœa Mixture, "Loomis."

℞ Tinct. Opii
Tinct. Rhei — āā fl ℥ ½
Tinct. Catechu Co. — fl ℥ 1
Ol. Sassafras — ♏ 20
Tinct. Lavand. Co. — q. s. ad fl ℥ 4

Mix. *Dose*—A fluidrachm after each movement.

85. Diarrhœa Mixture, "Squibb."

℞ Tinct. Opii
Tinct. Capsici
Spir. Camphoræ — āā fl ℥ 2
Chloroformi Purificati — ♏ 45
Alcohol — q. s. ad fl ℥ 10

Mix. *Dose*—20 to 40 minims.

Note.—This mixture was originally introduced and is still sold under the title "Compound Tincture of Opium." But it is not advisable to write for it by this name, or by its Latin equivalent, *Tinctura Opii Composita* ("Tr. Opii Comp."), since cases have occurred where it was dispensed by mistake for *Tinctura Opii Camphorata* ("Tr. Opii Camph.")

86. Diarrhœa Mixture, "Velpeau."

℞ Tinct. Opii
Tinct. Catechu Comp.
Spir. Camphoræ — āā part. æqu.

Mix. *Dose*—30 drops in water after each evacuation. If diarrhœa persists or increases, double the dose.

87. Elixir Catharticum Compositum, N. F.

COMPOUND CATHARTIC ELIXIR.

℞	Ext. Sennæ Fl.	fl ℥	1
	Ext. Podophylli Fl.	fl ℥	½
	Ext. Leptandræ Fl.		
	Ext. Jalapæ Fl.	āā ♏	180
	Potassii et Sodii Tart.	℥	1
	Sodii Bicarbonatis	gr.	60
	Elixir Taraxaci Co.	fl ℥	2
	Elixir Glycyrrhizæ	q. s. ad fl ℥	8

Dissolve and mix (see *Nat. Form.*, No. 40.) "Shake the bottle before dispensing." *Dose*, for an adult, 2 fluidrachms.

88. Guttæ Carminativæ. (Char. Hosp.)

"HOT DROPS."

℞	Tinct. Opii		
	Tinct. Capsici		
	Spir. Camphoræ		
	Spir. Menthæ Piperitæ	āā fl ʒ	2
	Aquæ	fl ℥	1

Mix. *Dose*—A teaspoonful.

89. Liquor Opii Compositus, Squibb.

Compound Solution of Opium, Squibb.

℞		
	Tinct. Opii Deodorati	fl ℥ 14
	Alcohol	fl ℥ 13
	Chloroformi Purificati	fl ℥ 1
	Ætheris Acetici	fl ℥ 2

Mix. *Dose*—15 to 30 minims.

Note.—Each fluidounce contains about 6 grains of morphine (alkaloid), equivalent to 7.5 grains of sulphate of morphine. Eight minims are equivalent to 1-8 grain of sulphate of morphine.

90. Mistura Aloes Alkalina.

Alkaline Mixture of Aloes.—Mettauer's Aperient.

℞		
	Extr. Aloes Aquosi	gr. 75
	Sodii Bicarbonatis	℥ 1½
	Tinct. Lavandulæ Comp.	fl ℥ 4
	Aquæ	q. s. ad fl ℥ 16

Dissolve, mix and filter.

Dose—1 fluid drachm to 1 fluid ounce, half an hour after meals, for costiveness.

91. Mistura Anticholerica.

"Sun Mixture."

℞		
	Tinct. Opii	
	Tinct. Capsici	
	Tinct. Rhei	
	Spir Camphoræ	
	Spir. Menthæ Pip.	*āā* part. æqu.

Mix. *Dose*—20 to 60 minims.

92. Mistura Antidiarrhœica. (Bureau O. D. P.)

"Diarrhœa Mixture, Child's."

℞ Tinct. Opii
Spir. Camphoræ āā ♏ 32
Spir. Menthæ Pip. ♏ 64
Tinct. Catechu Comp. fl ℥ 3
Mist. Cretæ q. s. ad fl ℨ 2

Mix. *Dose*—A teaspoonful. *(Dr. G. H. Bosley.)*

93. Mistura Antidysenterica.

(Mistura Camphoræ Acida. Hope's Camphor Mixture.)

℞ Acidi Nitrici ♏ 60
Tinct. Opii ♏ 40
Aquæ Camphoræ q. s. ad fl ℥ 8

Mix. *Dose*—A tablespoonful, increased to 1 or 2 fluid ounces every three hours, in dysentery.

Note.—The original formula directed "nitrous acid," meaning the impure commercial nitric acid, containing nitrogen tetroxide, or hyponitric acid, in solution.

94. Mistura Anti-emetica. (Char. Hosp.)

℞ Creasoti ♏ 12
Acidi Hydrocyanici Dil. ♏ 30
Acaciæ pulv.
Sacchari pulv. āā ℥ 6
Aquæ q. s. ad fl ℨ 2

Mix. *Dose*—A teaspoonful.

95. Mistura Carbolica Iodata. (Char. Hosp.)

℞ Acidi Carbolici
Tinct. Iodi Comp. āā ♏ 16
Mucilag. Acaciæ fl ℨ 2
Aquæ q. s. ad fl ℨ 8

Mix. *Dose*—A tablespoonful every hour, in septic diarrhœa. *(Dr. H. J. Garrigues.)*

96. Mistura Ferri et Calumbæ.

℞	Liquor. Ferri Nitratis	gtt. 27
	Tinct. Calumbæ	fl ℥ 3
	Syrupi	fl ℥ 4
	Aquæ	fl ℨ 2½

Mix. *Dose*—A teaspoonful every 2 or 3 hours. For an infant of 1 year, in chronic entero-colitis.

(Dr. J. Lewis Smith.)

97. Mistura Carminativa.

DALBY'S CARMINATIVE.

℞	Magnesii Carbonatis	gr. 120
	Potassii Carbonatis	gr. 5
	Tinct. Opii	♏ 45
	Ol. Cari	
	Ol. Fœniculi	
	Ol. Menthæ Piperitæ	āā gtt. 1
	Syrupi	fl ℥ 5
	Aquæ	q. s. ad fl ℨ 4

Dissolve and mix (see *Nat. Form.*, No. 252.) Each fluidrachm represents about ⅛ grain of opium.

98. Mistura Gentianæ Alkalina.

℞	Sodii Bicarbonatis	gr. 120
	Acidi Hydrocyanici Dil.	♏ 24
	Infusi Gentianæ Comp.	fl ℨ 8

Mix. *Dose*—½ to 1 fluid ounce In gastric intolerance of phthisis, etc.

Note.—Infusum Gentianæ Compositum *(Brit. Pharm.)* is prepared by infusing 60 grains, each, of gentian and bitter orange peel, and 115 grains of fresh lemon peel, all properly sliced or cut, in 10 fluid ounces (U. S. measure) of boiling water, and straining after one hour.

99. Mistura Olei Ricini. (Bureau O. D. P.)

℞	Olei Ricini	
	Syrupi Acaciæ	
	Syr. Ipecacuanhæ	
	Tinct. Opii Camph.	*āā* fl ℥ 2

Mix. *Dose*—A teaspoonful.

(Dr. J. E. Winters.)

100. Mistura Pepsini.

℞	Pepsini puri (in lamellis)	gr. 30
	Bismuthi Subnitratis	gr. 120
	Ac. Hydrochlor. Dil.	gtt. 30
	Syrupi	fl ℥ 4
	Aquæ	q s. ad fl ℨ 4

Mix. "Shake the bottle before dispensing" *Dose*—A teaspoonful before each feeding For a child of 1 year, affected with vomiting and indigestion.

(Dr. J. Lewis Smith.)

101. Mistura Rhei Composita.

Squibb's Rhubarb Mixture.

℞	Extr. Rhei Fl.	♏ 12
	Extr. Ipecac. Fl.	♏ 2
	Sodii Bicarbonatis	gr. 20
	Glycerini	fl ℥ 4
	Aquæ Menthæ Pip.	q. s. ad fl ℨ 2

Mix. *Dose*—½ to 1 teaspoonful, two or three times a day, for children.

102. Mistura Rhei et Calcis. (Bureau O. D. P.)

℞ Tinct. Opii Camphor.
Syr. Rhei Aromat. āā fl ℥ 4
Liquoris Calcis fl ℨ 2

Mix *Dose*—A teaspoonful for children, in diarrhœa.

(Dr. W. H. Ackerman.)

103. Mistura Rhei et Sodæ (I.) (Bell. Hosp.)

℞ Sodii Bicarbonatis gr. 60
Rhei pulv. ℥ 4
Spir. Menthæ Piperitæ fl ℥ 2
Aquæ q. s. ad fl ℨ 4

Mix. *Dose*—A teaspoonful.

Note.—The officinal Mist Rhei et Sodæ is also prescribed. See the succeeding formula.

104. Mistura Rhei et Sodæ (II.) (Bureau O.D.P.)

℞ Sodii Bicarbonatis gr. 60
Ext. Rhei Fl.
Spir. Menthæ Piperitæ āā fl ℥ 1
Aquæ q. s. ad fl ℨ 4

Mix. *Dose*—A teaspoonful.

Note.—This is practically identical with the officinal preparation.

105. Misturæ Sodæ et Menthæ.

Soda Mint.

℞ Sodii Bicarbonatis gr. 80
Spir. Ammoniæ Arom. ♏ 15
Aquæ Menthæ Viridis q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A tablespoonful.

106. Mistura Sodii Bicarbonatis. (Bureau O. D. P.)

℞	Sodii Bicarbonatis	ʒ 1
	Tinct. Zingiberis	fl ʒ 2
	Tinct. Gentianæ Comp.	fl ƺ 1
	Aquæ	fl ƺ 5

Dissolve and mix. *Dose*—2 teaspoonfuls.

107. Mistura Stomachica. (Bell. Hosp.)

℞	Tinct. Nucis Vomicæ	
	Tinct. Capsici	*aa* fl ʒ 1
	Tinct. Cinchonæ Comp.	
	Tinct. Gentianæ Comp.	*āā* fl ƺ 1

Mix. *Dose*—A teaspoonful before meals.

108. Mistura Sulpho-Alkalina. (Bureau O. D. P.)

℞	Sulphuris Loti	
	Potassii Bitartratis	
	Sodii Bicarbonatis	
	Potassii et Sodii Tartr.	*āā* part. æqu.

Mix. *Dose*—A tablespoonful, mixed with sweetened water

(Dr. E. A. Maxwell)

109. Mistura Tænicida. *(Schaffhirt's.)* (Bell. Hosp.)

℞	Granati Rad. Cort.	ƺ ½
	Peponis	ƺ 1
	Oleoresinæ Aspidii	fl ʒ 2
	Ergotæ pulv.	gr. 60
	Acaciæ pulv.	ʒ 2
	Olei Tiglii	gtt. 2
	Aquæ	q. s.

Bruise the pomegranate root bark and the pumpkin seed, and boil them in 8 fluid ounces of water for 15

minutes ; then strain. Rub the croton oil with the oleoresin of aspidium (male fern), the powdered ergot and the acacia, and add this to the decoctiou.

Administration: Give a saline cathartic the night before, keep the patient fasting, and at 10 A. M. administer the above mixture as *one dose.*

Note.—The original formula directs the oleoresin of aspidium to be boiled with the pomegranate and pumpkin seed. But its active principle, filicic acid, is almost entirely insoluble in water. Hence the oleoresin would be wasted unless added subsequently.

110. "Ward Cathartic." (Char. Hosp.)

℞	Magnesii Sulphatis	ʒ 1
	Syrupi	fl ʒ 2
	Aquæ	q. s. ad fl ʒ 4

Mix. *Dose*—1 to 2 fluid ounces.

111. "West's Mixture."

℞	Olei Ricini	fl ʒ 2
	Acaciæ pulv.	
	Sacchari pulv.	*āā* ʒ 2
	Tinct. Opii	♏ 24
	Aquæ Cinnamomi	q. s. ad fl ʒ 4

Dissolve and mix. *Dose*—A teaspoonful for children in diarrhœa.

D.—MIXTURES FOR DISEASES OF THE NERVOUS SYSTEM.

112. "Delirium Mixture."

℞	Potassii Bromidi	℥ 2
	Tinct. Lupulini	
	Tinct. Digitalis	āā fl ℥ 2
	Tinct. Valerian. Ammon.	fl ℥ 4
	Aquæ	q. s ad fl ℨ 2

Dissolve and mix. *Dose*—A teaspoonful.

113. Elixir Ferri et Arsenii Amarum. (Inf. Hosp.)

Bitter Elixir of Iron and Arsenic.

℞	Tinct. Ferri Citro-Chloridi	fl ℨ 1
	Quininæ Sulphatis	gr. 64
	Strychninæ Sulphatis	gr. ½
	Sodii Arseniatis (exsiccati)	gr. 1¼
	Alcohol	♏ 120
	Elixir Aromatici (N.F.) q. s. ad fl	ℨ 8

Dissolve and mix. *Dose*—About a teaspoonful, to be varied according to circumstances. *(Dr. L. Putzel.)*

Note.—Since crystallized arseniate of sodium is apt to lose more or less water by keeping and exposure to air, it is always preferable to deprive it of its water of crystallization (by drying it, in a powdered condition, at a heat approaching to, but short of 300 deg. F.), before weighing it out.

114. Migraine Mixture. (Char. Hosp.)

℞	Antipyrini	gr. 15
	Aquæ Menthæ Viridis	fl ℨ ½

Dissolve. *Dose*—Take as one dose at the beginning of a paroxysm.

(Dr. J. Blake White.)

115. Mistura Anti-epileptica.

℞	Sodii Bromidi	
	Potassii Bromidi	
	Ammonii Bromidi	*aā* ℥ 3
	Potassii Iodidi	
	Ammonii Iodidi	*aa* ℥ 1½
	Ammonii Carbonatis	℥ 1
	Tinct. Calumbæ	fl ℥ 1½
	Aquæ	q. s. ad fl ℥ 8

Dissolve and mix. *Dose*—1½ fluid drachms before meals, and 3 fluid drachms at bed-time.

(Dr. Brown-Séquard.)

116. Mistura Bromata.

℞	Sodii Bromidi	
	Ammonii Bromidi	*āā* gr. 20
	Tinct. Opii	♏ 5
	Aquæ	q. s. ad fl ℥ 1

Dissolve and mix. *One dose.*—In restlessness of melancholia, and the occasional excitement of primary and secondary dementia, especially when the general physical condition is poor.

117. Mistura Chloral et Hyoscyami.

℞	Chloral	gr. 15
	Extr. Hyoscyami Fl.	♏ 15
	Aquæ	q. s. ad fl ℥ 1

Dissolve and mix. *One dose,* to be repeated as often as necessary. A double dose may be given, when required.

In maniacal excitement of general paresis and inflammatory states in general, where the exhibition of hyoscyamine alone increases the severity of the disease after its hypnotic effect has passed off, and is, therefore, contra-indicated.

118. Mistura Chloral et Potassii Bromidi.

℞	Chloral	gr. 80
	Potassii Bromidi	gr. 160
	Syrupi	fl ℥ 1
	Aquæ	q. s. ad fl ℥ 2

Dissolve and mix. *Dose*—A teaspoonful.

Note.—When bromide of potassium, bromide of ammonium, or similar salts, are combined in one mixture with chloral hydrate, no tincture or other liquid containing a notable proportion of alcohol ought to be added, as the chloral hydrate is liable, under certain conditions, to be converted into chloral alcoholate, the solution of which will float upon the solution of the salts.

119. Mistura Chloral et Potassii Bromidi Composita.

℞	Chloral	
	Potassii Bromidi	*āā* gr. 480
	Ext. Cannabis Indicæ	
	Ext. Hyoscyami	*āā* gr. 1
	Alcohol	
	Tinct. Quillajæ (N. F.)	*āā* ♏ 120
	Aquæ	q. s ad fl ℥ 4

Dissolve and mix. (See *Nat. Form.*)

Note.—The active ingredients of this mixture, and their quantities, are the same as those alleged to be contained in a well-known proprietary article. But the latter cannot contain any extract of cannabis indica, as this is insoluble in water. In the above modification of the formula, the resinous extract is diffused and held in suspension by the aid of the tincture of quillaja.

120. Mistura Chloroformi et Opii.

CHLOROFORM ANODYNE.

℞	Chloroformi Purificati	fl ℥	4
	Ol. Menthæ Piperitæ	♏	4
	Tinct. Cannabis Indicæ		
	Tinct. Quillajæ (N. F.)	ãã fl ℥	4
	Ext. Belladonnæ Fl.	♏	32
	Tinct. Opii Deodoratæ	♏	330
	Tinct. Capsici	♏	120
	Ext. Glycyrrhizæ Purific.	gr.	60
	Aquæ	♏	60
	Syrupi	q. s. ad fl ℥	4

Dissolve and mix (see *Nat. Form.*) Each fluidrachm represents about 1 grain of opium, and the other ingredients in proportion.

Note.—This is intended to fulfil the same functions as the proprietary "chlorodyne" The actual composition and strength of the latter, in opium or morphine, is very uncertain.

121. Mistura Ergotæ Composita.

℞	Extr. Ergotæ Fl.	♏	30
	Potassii Bromidi	gr.	20
	Extr. Hyoscyami Fl.	♏	25
	Aquæ	q. s. ad fl ℨ	1

Dissolve and mix.—*One dose,* three times daily, in maniacal excitement of chronic and recurrent mania.

122. Mistura Nervina.

HAMMOND'S OR VANCE'S MIXTURE.

℞		
	Quininæ Sulphatis	
	Ferri Pyrophosphatis	āā ℥ 1
	Strychninæ Acetatis	gr. 1
	Acidi Phosphorici Diluti	fl ℥ 2
	Syrupi Zingiberis	fl ℨ 2
	Aquæ	q. s. ad fl ℨ 4

Add the pyrophosphate of iron to one fluid ounce of hot water, and dissolve it by agitation. Mix the sulphate of quinine and the acetate of strychnine with the diluted phosphoric acid and the syrup of ginger. Then pour the two solutions together, and add enough water to make the product measure 4 fluid ounces.

Dose—A teaspoonful.

Note. – The officinal phosphoric acid is the tribasic or orthophosphoric acid. This is incompatible with pyrophosphate of iron, as it does not dissolve the latter, or precipitates it, when in solution, in form of a gelatinous mass. It also partly precipitates the officinal phosphate of iron. The kind of phosphoric acid required for mixtures containing pyrophosphate or phosphate of iron in solution is the so-called *glacial* acid, which consists chiefly of metaphosphoric acid. For preparing mixtures like the above, the *Acidum Metaphosphoricum Dilutum* of the *National Formulary* should be kept in stock. This is prepared as follows :

Glacial Phosphoric Acid (pure)	780 gr.
Distilled Water, enough to make	16 fl oz.

If only the impure variety of glacial phosphoric acid, in form of sticks, and containing more or less phosphate of sodium, is available, 900 grains of this may be reckoned to be equivalent to 780 grains of the pure acid.

123. Mistura Phosphori. *(Thompson.)*

THOMPSON'S SOLUTION OF PHOSPHORUS.

℞		
	Phosphori	gr. 1
	Alcohol Absoluti	fl ℥ 5
	Glycerini	fl ℨ 1½
	Alcohol	fl ℥ 2
	Spir. Menthæ Pip.	♏ 40

Dissolve the phosphorus in the absolute alcohol, with the aid of a gentle heat; then add to it the glycerin, alcohol and spirit of peppermint, previously mixed and slightly warmed.

Each fluid drachm would contain nearly $\frac{1}{20}$ grain of phosphorus, if the latter were all dissolved.

(Dr. J. Ashburton Thompson.)

Note.—It is impossible either to dissolve all the phosphorus, or to keep it in solution, in the menstrum prescribed by the formula. This formula, as given by Dr. Thompson, is quoted here for reference only; it is recommended that it be abandoned in favor of the *Elixir Phosphori* (Elixir of Phosphorus of the *National Formulary*), which is more palatable, and of definite and permanent strength. (See below under "Elixirs and Wines.")

124. Mistura pro Delirio. (Bell. Hosp.)

"D. T. MIXTURE."

℞			
	Potassii Bromidi	ℨ	1
	Chloral	℥	4
	Tinct. Digitalis		
	Tinct. Capsici		
	Tinct. Zingiberis		
	Spir. Ammoniæ Arom.		
	Syr. Aurantii Cort.	*āā* fl ℨ	1
	Aquæ	q. s. ad fl ℨ	8

Dissolve and mix. *Dose*—A tablespoonful.

125. Mistura Sedativa. (I.)

℞	Chloral	gr. 15
	Ext. Conii Fl.	
	Ext. Hyoscyami Fl.	*āā* ♏ 15
	Aquæ	q. s. ad fl ℥ 1

Dissolve and mix. *One dose*, three times daily, after meals.

126. Mistura Sedativa (II.) (Char. Hosp.)

℞	Morphinæ Sulphatis	gr. 1
	Aquæ Chloroformi	
	Syr. Pruni Virgin.	*āā* fl ℥ 1

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. A. Talbot.)

127. Mistura Sodii et Ammonii Bromidi.

℞	Sodii Bromidi	
	Ammonii Bromidi	*āā* gr. 20
	Tinct. Opii	♏ 5
	Aquæ	fl ℥ 1

Dissolve and mix. *One dose*, in restlessness of melancholia and the occasional excitement of primary and secondary dementia, especially when the general physical condition is poor.

128. Mistura Valerianæ Ætherea.

℞	Ætheris Fortioris	
	Tinct. Valerianæ Ammon.	
	Tinct. Quassiæ	*āā* ♏ 30
	Aquæ.	q. s. ad fl ℥ 1

Mix. *One dose.*

129. Mistura Acidi Salicylici. (Bureau O. D. P.)

℞ Acidi Salicylici	gr.	80
Potassii Acetatis	gr.	160
Glycerini	fl ℥	4
Aquæ	q. s. ad fl ℨ	2

Dissolve and mix. *Dose*—A teaspoonful.

E.—MIXTURES FOR RHEUMATISM AND GOUT.

130. Mistura Antipodagrica.

Gout Mixture.

℞	Tinct. Colchici Sem.	♏ 15
	Magnesii Carbonatis	gr. 6
	Magnesii Sulphatis	gr. 30
	Aquæ Menthæ Pip.	q. s. ad fl ℥ 1

Dissolve and mix. *One dose.*

131. Mistura Antirheumatica (I.) (Bell. Hosp.)

℞	Potassii Acetatis	℥ 6
	Vini Colchici Sem.	fl ℥ 3
	Aquæ	q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A teaspoonful.

132. Mistura Antirheumatica (II.) (Char. Hosp.)

℞	Potassii Iodidi	
	Sodii Salicylatis	ăā ℥ 2
	Vini Colchici Sem.	fl ℥ 2
	Aquæ	q. s. ad fl ℨ 4

Dissolve and mix. *Dose*—A tablespoonful.

133. Mistura Colchici.

℞	Vini Colchici Sem.	♏ 15
	Magnessii Carbonatis	gr. 10
	Spir. Ætheris Nitrosi	
	Tinct. Conii	ăā ♏ 30
	Aquæ Menthæ Vir.	q. s. ad fl ℨ 1

Mix. *One dose.*

134. Mistura Olei Gaultheriæ. (Bell. Hosp.)

℞	Olei Gaultheriæ	♏ 160
	Mucilag. Acaciæ	fl ℥ 2
	Glycerini	
	Aquæ	*āā* fl ℥ 1

Mix. *Dose*—1 to 2 teaspoonfuls.

135. Mistura pro Rheumatismo (I.) (Bell. Hosp.)

℞	Acidi Salicylici	gr. 160
	Sodii Bicarbonatis	gr. 320
	Glycerini	fl ℥ 1
	Aquæ	q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A tablespoonful (representing 20 grains of salicylic acid.)

136. Mistura pro Rheumatismo (II.) (Bell. Hosp.)

℞	Sodii Salicylatis	℥ 5
	Aquæ Cinnamomi	fl ℥ 8

Dissolve and mix. *Dose*—A tablespoonful.

F. MIXTURES FOR VENEREAL AND URINARY DISEASES.

137. Mistura Biniodidi.

℞	Hydrargyri Chloridi Corr.	gr. 1
	Potassii Iodidi	ʒ 2
	Tinct. Gentian. Comp.	℥ 2

Dissolve and mix. *Dose*—A teaspoonful.

Note.—Tincture of Cinchona or other liquids containing alkaloids should not be combined in a mixture with biniodide of mercury, or with iodide of potassium and bichloride of mercury, since the alkaloids may, under certain conditions, be precipitated as iodo-hydrargyrates, and the patient might possibly take the whole precipitate with the last dose.

138. Mistura "Bumstead."

℞	Copaibæ	fl ʒ 4
	Tinct. Ferri Chloridi	
	Tinct. Cantharidis	āā fl ʒ 2
	Glycerini	fl ʒ 4
	Syrupi	q. s. ad fl ℥ 4

Mix. *Dose*—A tablespoonful.

139. Mistura Copaibæ. (Bureau O. D. P.)

℞	Copaibæ	fl ℥ 1
	Liq. Potassæ	♏ 150
	Spir. Ætheris Nitrosi	fl ℥ 1½
	Acaciæ pulv.	ʒ 3
	Glycerini	fl ʒ 6
	Aquæ	q. s. ad fl ℥ 4

Mix. *Dose*—2 teaspoonfuls. *(Dr. E. A. Banks.)*

140. Mistura Copaibæ Composita. (N. F.)

Lafayette Mixture.

℞ Copaibæ		
Spir. Ætheris Nitrosi		
Tinct. Lavandulæ Comp.	*āā* fl ℥	1
Liq. Potassæ	♏	120
Syrupi	fl ℥	2½
Mucilag. Dextrini	q. s. ad fl ℥	8

Mix the copaiba with the solution of potassa and the spirit of nitrous ether. Then add the compound tincture of lavender, and lastly, the syrup and mucilage of dextrin. Mix the whole thoroughly by shaking.

Note.—The above mixture has usually been made with mucilage of acacia; but if mucilage of dextrin be used, it will keep for a longer time without separating.

Mucilage of Dextrin (N. F.) is prepared as follows: Dextrin (*white*), 1 part; water enough to make 3 parts. Mix them in a tared vessel, and heat the mixture, under constant stirring, to near boiling, until the Dextrin is dissolved, and a limpid liquid results. Then restore any loss of water by evaporation, strain the liquid through muslin, and allow it to cool short of gelatinizing, when it will be ready for immediate use. (See *Nat. Form.*)

141. Mistura Copaibæ et Potassii Acetatis.

℞ Copaibæ	fl ℥	6
Potassii Acetatis	℥	½
Mucilag. Dextrini		
Syrupi	*āā* fl ℥	4
Aquæ	q. s. ad fl ℥	4

Dissolve and mix. *Dose*—A tablespoonful.

(Dr. S. Alexander.)

142. Mistura Hydrargyri Bichloridi. (Bureau O. D. P.)

℞ Hydrargyri Chloridi Corr. gr. 1
Potassii Iodidi ℥ 2
Tinct. Gentian. Comp. fl ʒ 4

Dissolve and mix. *Dose*—A teaspoonful.

143. Mistura Hydrargyri Biniodidi.

"Mixed Treatment, Thompson."

℞ Hydrargyri Biniodidi gr. 1
Potassii Iodidi ℥ 3
Tinct. Aurantii Dulcis fl ʒ 1
Aquæ fl ʒ 3

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. Beverhout Thompson.)

144. Mistura Iodata. (Bureau O. D. P.)

℞ Potassii Iodidi ℥ 2
Syrupi Ferri Iodidi fl ʒ ½
Tinct. Calumbæ q. s. ad fl ʒ 2

Dissolve and mix. *Dose*—A teaspoonful.

145. Mistura Iodidi et Sarsæ. (Bureau O. D. P.)

℞ Potassii Iodidi ℥ 3
Syr. Sarsaparillæ Comp.
Aquæ *āā* fl ʒ 1

Dissolve and mix. *Dose*—A teaspoonful.

146. Mistura Potassii Iodidi. (Char. Hosp.)

℞ Potassii Iodidi ℥
Syr. Sarsaparillæ Comp.
Tinct Gentian. Comp. *āā* fl ʒ 1

Dissolve and mix. *Dose*—A tablespoonful.

147. "Mixed Treatment, Taylor." (Bureau O. D. P.)

℞	Hydrargyri Biniodidi	gr. ½
	Potassii Iodidi	ʒ 2
	Syr. Sarsaparillæ Comp.	
	Aquæ	*āā* fl ʒ 1

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. R. W. Taylor.)

148. Syrupus Hydrargyri Biniodidi. (Bureau O. D. P.)

℞	Hydrargyri Biniodidi	gr. 1½
	Potassii Iodidi	gr 80
	Syrupi	fl ʒ 2

Dissolve and mix. *Dose*—A teaspoonful.

(Dr. E. A. Banks.)

149. Diuretic Mixture. (Char. Hosp.)

℞	Acidi Benzoici	gr. 120
	Morphinæ Sulphatis	gr. 1
	Ext. Buchu Fl.	
	Spir. Juniperi Comp.	*āā* fl ʒ 1

Dissolve and mix. *Dose*—A teaspoonful in water.

(Dr. Alexander Stein.)

150. Haustus Diureticus. (Char. Hosp.)

Diuretic Drink.

℞	Potassii Acetatis	ʒ 1
	Spir. Ætheris Nitrosi	fl ʒ 1
	Infusi Digitalis	fl ʒ 4
	Glycerini	fl ʒ 2
	Aquæ	q. s. ad fl ʒ 8

Dissolve and mix. *Dose*—A tablespoonful.

151. Incontinence Mixture. (Char. Hosp.)

℞	Sodii Benzoatis	
	Sodii Salicylatis	*āā* gr. 30 (to 60)
	Ext. Belladonnæ Fl.	gtt. 2
	Aquæ Cinnamomi	fl ℥ 4

Dissolve and mix. *Dose*—A teaspoonful 4 or 5 times daily. For incontinence of urine in children.

(Dr. J. Blake White.)

152. Mistura Buchu. (Bureau O. D. P.)

℞	Ext. Buchu Fl.	
	Tinct. Hyoscyami	*āā* fl ℥ 3
	Liquoris Potassæ	♏ 90
	Aquæ Menthæ Pip.	q. s. ad fl ℥ 2

Mix. *Dose*—A teaspoonful.

153. Mistura Buchu Composita. (Bureau O. D. P.)

℞	Ext. Buchu Fl.	fl ℥ 4
	Tinct. Hyoscyami	fl ℥ 2
	Potassii Acetatis	℥ 1
	Syrupi Zingiberis	fl ℥ 1
	Aquæ	q. s. ad fl ℥ 4

Dissolve and mix. *Dose*—A tablespoonful, in water, every 4 hours. In catarrhal cystitis.

(Dr. W. B. Anderton.)

154. Mistura Digitalis et Scoparii. (Bell. Hosp.)

"Special Diuretic."

℞	Potassii Acetatis	℥ 5
	Spir. Ætheris Nitrosi	fl ℥ 4
	Infusi Digitalis	fl ℥ 6
	Infusi Scoparii	q. s. ad fl ℥ 16

Dissolve and mix. *Dose*—A tablespoonful.

155. Mistura Diuretica (I.) (Bell Hosp.)

℞	Spir. Ætheris Nitrosi	fl ℥ 1½
	Tinct. Ferri Chloridi	
	Tinct. Nucis Vomicæ	āā fl ℥ 1
	Syrupi	fl ℥ 3

Mix. *Dose*—2 teaspoonfuls.

(Dr. W. H. Thomson.)

156. Mistura Diuretica (II.) (Bell. Hosp.)

℞	Potassii Acetatis	gr. 300
	Infusi Digitalis	fl ℥ 8

Dissolve and mix. *Dose*—A tablespoonful.

157. Mistura Diuretica. (Char. Hosp.)

"A-B-C Diuretic."

℞	Potassii Acetatis	
	Potassii Bicarbonatis	
	Potassii Citratis	āā ℥ 1
	Infusi Tritici Rep.	q. s. ad fl ℥ 4

Dissolve and mix *Dose*—A tablespoonful.

(Dr. R Guiteras.)

158. Mistura Gelsemii Composita. (Char. Hosp.)

℞	Tinct. Gelsemii	fl ℥ 2
	Ext. Fabianæ [Pichi] Fl.	fl ℥ 4
	Syrupi Acaciæ	fl ℥ 1
	Aquæ Aurantii Flor.	q. s. ad fl ℥ 4

Dissolve. *Dose*—A teaspoonful every 4 hours For irritable bladder, attended with frequent and painful urination, especially in women.

(Dr. J. Blake White)

159. Mistura pro Cystitide. (Bell. Hosp.)

"Cystitis Mixture."

℞	Liquoris Potassæ	fl ℥ 1
	Mucilag. Acaciæ	fl ℥ 4
	Tinct. Hyoscyami	q. s. ad fl ℨ 2

Mix. *Dose*—A teaspoonful.

160. Mistura pro Cystitide, "Polk." (Bell. Hosp.)

"Cystitis Mixture, Polk."

℞	Potassii Bicarbonatis	℥ 1
	Tinct. Hyoscyami	fl ℨ 1
	Infusi Buchu	q. s. ad fl ℥ 6

Dissolve and mix. *Dose*—A tablespoonful.

(Dr. W. M. Polk.)

161. Mistura Tritici Repentis. (Bell. Hosp.)

℞	Potassii Acetatis	gr. 80
	Infusi Tritici Rep. Aquæ	*āā* fl ℥ 4

Dissolve and mix. *Dose*—A tablespoonful.

II. EMULSIONS.

162. Emulsio Olei Morrhuæ.

℞		
	Olei Morrhuæ	fl ℥ 8
	Mucilag. Chondri (N.F.)	fl ℥ 5
	Syrupi Tolutani	fl ℥ 2
	Olei Gaultheriæ	
	Olei Sassafras	āā ♏ 15
	Aquæ	q. s. ad fl ℥ 16

Pour the mucilage of Irish moss into a suitable bottle; add the cod liver oil in divided portions, shaking well after each addition, and, when a perfect emulsion, is formed, add the syrup of tolu and the oils, and lastly, enough water to make 16 fluidounces. Finally, mix the whole thoroughly together.

Note.—The above method of making emulsion of cod liver oil is very expeditious. For other methods consult the *National Formulary*. Mucilage of Irish moss is prepared as follows :

Irish moss	360 grains.
Water,	enough to make 30 fluidounces.

Wash the Irish moss with cold water, then place it in a suitable vessel, add 30 fluidounces of water and heat it, on a boiling water-bath, for fifteen minutes, frequently stirring. Then strain it through muslin, and pass enough water through the strainer to make the liquid, when cold, measure 30 fluidounces.

This mucilage should be freshly prepared when required for use. It may, however, be kept on hand, if it is poured, while hot, into bottles, which should be filled to the neck, and a layer of olive oil poured on the surface. When the mucilage is wanted for use, this layer is removed by means of absorbent cotton.

The flavoring ingredients, in this or any other emulsion, may be altered according to taste. The following combinations will be

found suitable, each being intended for 1 pint of finished emulsion:

1. Oil of Gaultheria, 30 min.
2. Oil of Gaultheria, 15 "
   Oil of Sassafras, 15 "
3. Oil of Gaultheria, 15 min.
   Oil of Bitter Almond, 2 min.
   Oil of Coriander, 2 "
4. Oil of Gaultheria, 20 min.
   Oil of Bitter Almond, 20 min.

163. Emulsio Olei Morrhuæ cum Calce (I.)

(Bell. & Char. Hosp.)

℞ Olei Morrhuæ
Liquoris Calcis āā fl ℥ 8
Olei Cinnamomi ♏ 10

Mix. *Dose*—A tablespoonful.

Note.—Lime water produces a lime soap with fixed oils. Though this is no emulsion, it is called so for convenience.

164. Emulsio Olei Morrhuæ cum Calce (II.)

(Bureau O. D. P.)

℞ Olei Morrhuæ fl ℥ 2
Liquoris Calcis fl ℥ 1½
Syr. Calcii Lacto-phosph. fl ℥ ½

Mix. *Dose*—A teaspoonful.

(Dr. G. H. Bosley.)

165. Emulsio Olei Morrhuæ pro Infantibus. (Bell. Hosp.)

℞ Olei Morrhuæ
Liquoris Calcis āā fl ℥ 5
Mucilag. Acaciæ fl ℥ 4
Syrupi Hypophosphitum fl ℥ 2
Olei Cinnamomi ♏ 30

Mix. *Dose*—A teaspoonful.

166. Emulsio Olei Ricini.

℞	Olei Ricini	fl ℥ 5
	Mucilag. Chondri	fl ℥ 5
	Tincturæ Vanillæ	♏ 180
	Syrupi	fl ℥ 3
	Aquæ	q. s. ad fl ℥ 16

To the mucilage of Irish moss contained in a suitable bottle, add the castor oil in divided portions, agitating each time until the last added portion has been emulsified. Then add the tincture of vanilla, the syrup, and enough water to make 16 fluidounces. Finally, mix the whole thoroughly together.

Note.—Spirit of Cinnamon is prepared by dissolving 1 volume of oil of cinnamon in 9 volumes of alcohol.

167. Emulsio Olei Terebinthinæ.

℞	Olei Terebinthinæ	fl ℥ ½
	Acaciæ pulv.	℥ 2
	Olei Menthæ Pip.	gtt. 5
	Syrupi	℥ 1
	Aquæ	q. s. ad fl ℥ 4

Pour the oil of turpentine into a clean and perfectly dry 4 oz. vial, and shake it about so that the whole interior surface may be wetted by the oil. Then add the acacia, and shake again Next add the oil of peppermint, the syrup, and, lastly, enough water to mak- 4 fl. ounces, and mix by agitation.

Note.—On standing, this mixture will separate. It may be restored by shaking.

168. Mistura Olei Morrhuæ. (Bureau O. D. P.)

℞	Olei Morrhuæ	fl ℥ 16
	Liquoris Potassæ	fl ℥ 2½
	Mellis	fl ℥ 3
	Acaciæ pulv.	℥ 1
	Olei Anisi	gtt. 20
	Olei Menthæ Viridis	gtt. 18

Mix. *Dose*—A tablespoonful.

(Dr. G. S. Winston.)

III. ELIXIRS AND WINES.

169. Elixir Ammonii Valerianatis.

℞	Ammonii Valerianatis	gr. 256
	Chloroformi Purificati	♏ 6
	Tinct. Vanillæ	fl ℥ 2
	Aquæ Ammoniæ	q. s.
	Tinct. Persionis Comp.	fl ℥ 2
	Elixir Aromatici q. s. ad	fl ℨ 16

Mix. Each fluidrachm contains 2 grains of valerianate of ammonium.

Note.—This and the following Elixirs will be furnished by the General Drug Department, if required. Most of them are prepared after the *National Formulary*.

170. Elixir Aromaticum.

Aromatic Elixir.

℞	Spiritus Aromatici	fl ℨ 8
	Syrupi	
	Aquæ	āā fl ℥ 12

Mix the aromatic spirit with the syrup; then add the water. Add 1 ounce of purified talcum, mix thoroughly, and filter through a wetted filter.

Note.—*Spiritus Aromaticus* is a solution of the oils of bitter orange, lemon, coriander and staranise in deodorized alcohol.

171. Elixir Cinchonæ et Ferri.

ELIXIR OF CALISAYA AND IRON.

℞	Ferri Phosphatis (U.S.P. '80)	gr. 256
	Acidi Citrici	gr. 5
	Aquæ Bullientis	fl ℥ 1
	Elixir Quininæ Comp. q. s. ad	fl ℥ 16

Dissolve and mix. *Dose*—1 fluidrachm.

Note.—The *Elixir Quininæ Comp.* is an "Elixir of Calisaya" not prepared from cinchona bark, but from an equivalent quantity of the principal alkaloids contained therein.

172. Elixir Glycyrrhizæ.

ELIXIR OF LIQUORICE.

℞	Ext. Glycyrrhizæ Depur.	℥ 1
	Aquæ Ammoniæ	q. s.
	Elixir Aromatici q. s. ad	fl ℥ 16

Triturate the purified extract of liquorice with 12 fluidounces of aromatic elixir, gradually added. To 10 fluidounces of this mixture add water of ammonia in drops until it is in slight excess. Mix this with the reserved portion, and finally add enough aromatic elixir to make 16 fluidounces. Filter, if necessary.

Note.—This Elixir is used as a vehicle for bitter medicines. It is not as good a vehicle for quinine or its salts, as the *Elixir Taraxaci Compositum.*

173. Elixir Opii, McMunn.

MCMUNN'S ELIXIR OF OPIUM.

In place of this proprietary article, the officinal Tinctura Opii Deodorata should be used. The latter is supplied by the General Drug Department of standard strength, containing 6 grains of morphine in each fluidounce, equivalent to about 7.5 grains of sulphate of morphine.

174. Elixir Phosphori.

℞		
	Spiritus Phosphori	fl ℥ 30
	Olei Anisi (stellati)	♏ 16
	Glycerini	fl ℨ 9
	Elixir Aromatici	q. s. ad fl ℥ 16

Mix. Each fluidrachm contains $\frac{1}{50}$ grain of Phosphorus.

Note.—Spiritus Phosphori is a solution of phosphorus in absolute alcohol, and of the strength of 1 grain in 12 fluidrachms.

This Elixir, when properly prepared (it should be perfectly clear), and stored in a dark place and in small, full, well stoppered vials, will keep for a long time. In giving phosphorus, the liquid form is preferable to the solid form (such as pills,) on account of the certainty that the substance has been perfectly divided.

175. Elixir Taraxaci Compositum.

Compound Elixir of Taraxacum.

An aromatic syrup, prepared by making 16 fl. oz. of a tincture (with 1 vol. of alcohol and 2 vols. of water) from 1 troy oz., each, of taraxacum, wild cherry, and sweet orange peel, 3 troy oz. of peeled Russian glycyrrhiza, 120 grains, each, of Saigon cinnamon, cardamon, Canada snake root, and caraway, and 40 grains of cloves, and finally adding 32 fl. oz. of syrup. (See *National Formulary*).

Note.—This elixir is used as a vehicle for quinine and other bitter medicines. Quinine, or its salts, should be incorporated with it only mechanically, and no acid should be used to effect solution, as this would precipitate insoluble glycyrrhizin.

176. Vinum Carnis et Ferri.

Wine of Beef and Iron.

℞ Ext. Carnis (Liebig)		gr. 256
Tinct. Ferri Citro-Chloridi		♏ 256
Aquæ		fl ℥ 1
Vini Xerici	q. s. ad fl	℥ 16

Dissolve, mix and filter.

Each fluidrachm represents 2 grains of extract of beef, and 2 minims of tasteless tincture of iron.

177. Vinum Carnis, Ferri et Cinchonæ.

Wine of Beef, Iron and Cinchona (Calisaya.)

℞ Extr. Carnis (Liebig)		gr. 256
Tinct. Ferri Citro-Chloridi		♏ 256
Quininæ Hydrochloratis		gr. 16
Cinchonidinæ Sulphatis		gr. 8
Acidi Citrici		gr. 6
Aquæ		fl ℥ 4
Syrupi		fl ℥ 1½
Vini Albi Dulcis	q. s. ad fl	℥ 16

Dissolve, mix and filter.

Each fluidrachm contains 2 grains of extract of beef, 2 minims of tasteless tincture of iron, and smaller quantities of cinchona alkaloids.

Note.—The "Sweet White Wine" directed by the formula may be either the California wine, known as "Angelica," or some other similar variety.

178. Vinum Ferri et Quininæ.

℞ Liquor Ferri et Quininæ Cit.		fl ℥ 2
Vini Xerici	q. s. ad fl	℥ 2

Mix. *Dose*—A teaspoonful.

IV. TINCTURES AND SPIRITS FOR INTERNAL USE.

179. Spiritus Glonoini.

This is a solution of 1 part, by weight, of nitroglycerin (glonoin, trinitrate of glyceryl, trinitrine), in 99 parts, by weight, of alcohol. It should be kept so that the alcohol cannot evaporate, and preferably in tin cans. (See *Nat. Form.)*

180. Tinctura Antiperiodica (N. F.)

"Warburg's Tincture."

This is prepared by digesting aloes 224 grs.; rhubarb, angelica seed, each, 56 grs.; elecampane, saffron, fennel, each, 28 grs.; gentian, zedoary, cubeb, myrrh, white agaric, camphor, each, 14 grs., with 14 fl. ounces of alcohol, for 12 hours; straining; dissolving in the strained liquid 160 grs. of sulphate of quinine; neutralizing any acidity with chalk, and finally making up the volume with alcohol to 1 pint.

Each fluid ounce contains 10 grs. of sulphate of quinine.

Note.—This tincture is often ordered "without aloes." The *National Formulary* directs a stock tincture to be made without aloes, and the latter to be added (in form of aqueous extract) when "Warburg's Tincture," without further specification, is prescribed. The tincture "without aloes" is not to be dispensed unless specially ordered.

181. Tinctura Quininæ Composita.

Compound Tincture of Quinine.

℞	Quininæ Sulphatis	gr. 16
	Tinct. Aurantii Dulcis	fl ʒ 2

Dissolve. *(Dr. A. L. Loomis.)*

182. Tinctura Strophanthi (N. F.)

An alcoholic tincture prepared from strophanthus seeds, deprived of the comose appendage, dried, powdered and freed from oil by ether, of such a strength that each fluidrachm represents 3 grains of the dried and powdered seeds.

V. HYPODERMIC SOLUTIONS.

Hypodermic solutions should be prepared with the utmost care, so as to exclude, as much as possible, all micro-organisms. If possible, the distilled water, vials, and everything coming in contact with them during the preparation, should previously be sterilized by a sufficient degree of heat. If this is not convenient, the solution prepared with distilled water should be filtered through a small pellet of pure absorbent cotton, pushed into the neck of the funnel. These solutions should be prepared only in small quantity, as they are liable to deteriorate by keeping. Many of them may be preserved for a considerable time by the addition of 15 to 20 per cent. of alcohol or glycerin, or by the addition of boric acid (about 5 grs. to 1 fl. oz.), or *by using chloroform water instead of plain distilled water for solution. The last named agent is particularly useful.* Preservatives should, however, not be added, except by the direction, or with the knowledge of the prescriber. As soon as the slightest change is noticed in any hypodermic solution, it should be rejected.

The doses appended to the several solutions quoted here may of course be varied by the prescribers, according to circumstances.

183. Injectio Acidi Carbolici Hypodermica.

℞ Acidi Carbolici	gr.	2
Aquæ Destillatæ	q. s. ad ♏	100

Dissolve and filter. *Dose*—5 to 15 ♏ ($\frac{1}{10}$ to $\frac{3}{10}$ grs. of carbolic acid.)

184. Injectio Aconitinæ "Duquesnel" Hypodermica.

℞ Aconitinæ cryst. "Duquesnel"	gr.	1
Aquæ Chloroformi	♏	2000

Dissolve and filter. *Dose*—5 to 10 ♏ ($\frac{1}{400}$ to $\frac{1}{200}$ gr. of Duquesnel's crystallized aconitine.)

Note.—The utmost caution should be exercised in prescribing and using aconitine. There is great difference in the therapeutic ac-

tion between the commercial aconitines, some being very much weaker than others. Amorphous aconitines should never be prescribed or dispensed. The most uniform and reliable commercial variety during some years past has been Duquesnel's crystallized aconitine, and until more experience has been gathered regarding more recent commercial varieties, Duquesnel's alkaloid will alone be furnished for use in this Department. *Physicians are particularly urged never to prescribe aconitine without specifying the maker's name, and the crystalline condition,* as very serious accidents have happened from the accidental and unintentional substitution of a very active variety for a weaker one, previously dispensed, there being no means to distinguish the one from the other, except by their effects.

It is best, when preparing the above solution, to use some preservative, as the bulk of the solution is quite large, and it ought to be made to last some time.

185. Injectio Antipyrinæ Hypodermica.

℞	Antipyrinæ	gr. 40
	Aquæ Destillatæ	q. s. ad ♏ 80

Dissolve and filter. *Dose*—8 to 30 ♏ (4 to 15 grains.)

Note.—The pain which this injection is apt to cause may be lessened or obviated by the addition of ½ grain of hydrochlorate of cocaine for every 80 minims of the injection.

186. Injectio Apomorphinæ Hypodermica.

℞	Apomorphinæ Hydrochloratis	gr. 2
	Acidi Hydrochlorici	gtt. 2
	Aquæ Camphoræ	♏ 100

Dissolve and filter. *Dose*—2 to 8 ♏ ($\frac{1}{25}$ to $\frac{1}{6}$ grain of the salt.)

Note.—This solution should always be freshly made, as the salt is apt to decompose under the influence of light. The addition of the few drops of hydrochloric acid renders the solution much more stable, without producing irritation.

187. Injectio Atropinæ Hypodermica.

℞ Atropinæ Sulphatis gr. 2
Aquæ Destillatæ ♏ 100

Dissolve and filter. *Dose*—2 to 4 ♏ ($\frac{1}{25}$ to $\frac{1}{12}$ grain of the salt.)

188. Injectio "Brown-Sequard" Hypodermica.

℞ Hyoscyaminæ Sulph. amorph.
Coniinæ Hydrobromatis āā gr. $\frac{1}{60}$
Strychninæ Sulphatis gr. $\frac{1}{14}$
Brucinæ Sulphatis gr. $\frac{1}{40}$
Morphinæ Sulphatis gr. $\frac{1}{10}$
Aconitinæ Nitr. cryst. "Duquesnel"
Atropinæ Sulphatis āā gr. $\frac{1}{200}$
Aquæ Distillatæ ♏ 10

Average dose—10 ♏.

Note.—This solution was at first prepared for certain patients who found great difficulty in swallowing pills, as a substitute for Brown-Sequard's neuralgic pill (see *Pilulæ Neuralgicæ*), the constituents of which (except the Cannabis Indica) are represented by it as closely as possible. Subsequently it was found, by Dr. H. V. Wildman, to be an exceedingly effective hypnotic in various forms of insanity accompanied by excitement and insomnia. In such cases it is sometimes preferable to administer a mixture of 5 minims of the above solution with 5 minims of Magendie's solution of morphine. This solution is furnished, ready-made, by the General Drug Department.

189. Injectio Caffeinæ Hypodermica.

℞ Caffeinæ Sodio-Salicylatis gr. 20
Aquæ Destillatæ q. s. ad ♏ 60

Dissolve and filter. *Dose*—6 to 8 ♏ (2 to 3 grains of the salt.)

Note.—The sodio-salicylate and the sodio-benzoate of caffeine are the most soluble compounds of caffeine known, but, as furnished

by the foreign makers, they contain varying proportions of the alkaloid. Those prepared at the General Drug Department contain, uniformly, 50 per cent. of caffeine, in accordance with the standard established by the *National Formulary.*

Theine has also been prescribed occasionally, internally or hypodermically. While there are a few authorities who claim that theine possesses therapeutic properties materially different from those of caffeine, chemists find the two substances to be *identical*, and manufacturers use either coffee or tea for making the alkaloid. Generally they make it from damaged tea (hence the so-called "caffeine" is really mostly "theine"), but occasionally also from coffee, when a damaged lot can be cheaply procured. Both the "caffeine" and the "theine" of the manufacturer are taken from the same receptacle or container, and the purchaser has no means of knowing whether the source of the alkaloid was tea or coffee. One or two foreign manufacturers, however, have recently commenced to supply caffeine and theine guaranteed to be made, respectively, from coffee and tea.

190. Injectio Cocainæ Hypodermica.

℞ Cocainæ Hydrochloratis	gr.	5
Aquæ Destillatæ	♏	100

Dissolve and filter. *Dose*—1 to 10 ♏ ($\frac{1}{20}$ to $\frac{1}{2}$ grain of the salt) repeated when required.

Note.—This solution, when used as a local application to mucous membranes, is best prepared with a saturated and filtered solution of boric acid in distilled water. When used hypodermically, chloroform water is preferable.

The mydriatic effect which cocaine exerts upon the pupil of the eye may be neutralized by adding $\frac{1}{2}$ grain of hydrochlorate of pilocarpine to each fluid drachm of 5 per cent. solution of cocaine.

191. Injectio Curare Hypodermica.

℞ Curare pulv.		gr. 5
Aquæ Destillatæ	q. s. ad	♏ 60

Triturate the curare with about 30 minims of distilled water to a thin paste ; transfer this to a small, wetted filter, and pass enough distilled water through the latter to make 60 minims.

Dose—1 to 6 ♏ ($\frac{1}{12}$ to $\frac{1}{2}$ grain.)

Note.—Curare (or woorari, urari, etc.) is a South American arrow poison, made in a crude way from numerous and varying ingredients. There are several varieties, obtained from different tribes of Indians, which differ greatly in effects. No specimen of curare should be relied on which has not been tested physiologically, and has been actually found to produce the characteristic paralyzing effect upon the voluntary muscular system.

192. Injectio Ergotini Hypodermica.

℞ Extracti Ergotæ (U.S. Ph. 1880)		gr. 100
Aquæ Camphoræ	q. s. ad	♏ 500

Dissolve and filter. *Dose*—5 ♏ and more.

Note.—This solution should be freshly made when wanted for use. It is of the same strength as the fluid extract of ergot, each minim representing 1 grain of ergot. In place of Extractum Ergotæ, purified Ergotin (so-called) may be used.

193. Injectio Hyoscinæ Hypodermica.

℞ Hyoscinæ Hydrobromatis		gr. 1
Aquæ Destillatæ		♏ 400

Dissolve and filter. *Dose*—1 to 4 ♏ ($\frac{1}{400}$ to $\frac{1}{100}$ grain.)

Note.—On Hyoscine compare the note to the following paragraph. The above solution is best made with chloroform water, which will keep it from deteriorating.

194. Injectio Hyoscyaminæ Hypodermica.

℞ Hyoscyaminæ Sulph. amorph.	gr. 5
Aquæ Destillatæ	fl ʒ 1

Dissolve and filter. *Dose*—1 to 5 ♏ ($\frac{1}{100}$ to $\frac{1}{20}$ grain.) As a hypnotic for insane patients, the average dose is 10 minims, equivalent to nearly $\frac{1}{10}$ grain of the salt.

Note.—Hyoscyamus contains two alkaloids—*hyoscyamine*, which is crystalline and forms crystallizable salts, and *hyoscine* (discovered by Ladenburg), which is amorphous. When hyoscyamine crystallizes from the final solution of alkaloids extracted from henbane, the mother-liquid contains the other alkaloid, *hyoscine*, together with a small proportion of hyoscyamine remaining in solution. As long as the separate existence of hyoscine was unknown, the mother-liquid was simply evaporated and the dry residue sold as "amorphous hyoscyamine." It is this amorphous mixture of alkaloids upon which most of the recorded therapeutic experience is based. The white crystalline alkaloid hyoscyamine is but feebly hypnotic or not at all (*Kobert.*) The real hypnotic is *hyoscine*. But as it costs so much to separate this alkaloid completely from the residue [pure hyoscine costs about ten times as much as hyoscyamine], and as the mixture obtained by simply evaporating the mother-liquid has been found equally effective, the manufacturers continue to suppiy the latter. Physicians desiring to use hyoscyamine as a *hypnotic* often specify: "*Hyoscyam. Sulph. pur.* (or *cryst.*)," perhaps with the addition of the maker's name (Merck, etc.) while in fact they should have specified thus: "*Hyoscyaminæ Sulphatis amorphi (colorati)*, which is in the form of a *dry, yellowish powder*. The brown syrupy kind of hyoscyamine formerly supplied and still kept occasionally in stock, is worthless and should not be used.

195. Injectio Morphinæ Hypodermica, Magendie.

Liquor Morphinæ Hypodermicus. (N. F.)
Magendie's Solution of Morphine.

℞ Morphinæ Sulphatis	gr. 16
Aquæ Destillatæ	fl ʒ 1

Dissolve and filter. *Dose*—3 to 15 ♏ ($\frac{1}{10}$ to $\frac{1}{2}$ grain of the salt.)

Note.—This is best preserved by using chloroform water in place of plain distilled water.

Special care should be taken that this is not mistaken for the "U. S. Solution of Morphine." (See Rules and Regulations, No. 45.)

196. Injectio Physostigminæ Hypodermica.

℞ Physostigminæ [*vel* Eserinæ] Salicylatis	gr. 1
Aquæ Destillatæ	♏ 160

Dissolve and filter. *Dose*—2 to 10 ♏ ($\frac{1}{80}$ to $\frac{1}{16}$ grain of the salt.)

Note.—If this solution is to be kept in stock, 30 minims of the water may be replaced by alcohol, or a saturated solution of boric acid may be used in place of the water.

The salicylate is preferable to other salts of this alkaloid, as it is distinctly crystalline and not deliquescent. In solution it does not keep any better than the sulphate.

197. Injectio Pilocarpinæ Hypodermica.

℞ Pilocarpinæ Hydrochloratis	gr. 2
Aquæ Destillatæ	♏ 100

Dissolve and filter. *Dose*—5 to 15 ♏ ($\frac{1}{10}$ to $\frac{1}{3}$ grain of the salt.)

198. Injectio Quininæ et Ureæ Hypodermica.

℞	Quininæ et Ureæ Hydrochlor.	gr. 5
	Aquæ Destillatæ	♏ 10

Dissolve and filter. *Dose*—2 to 10 ♏ (1 to 5 grains of the salt.)

Note.—Hydrochlorate of quinine and urea (also known as *Chininum (bi-) muriaticum carbamidatum*) contains 69 per cent. of pure, anhydrous quinine. (See *New Remedies*, 1878, 394.)

199. Injectio Quininæ Hypodermica, Lente.

℞	Quininæ Sulphatis	gr. 80
	Acidi Sulphurici Dil.	♏ 30
	Acidi Carbolici liquef.	♏ 5
	Aquæ	fl ʒ 1

Heat the quinine with the sulphuric acid and water to boiling (the object being to sterilize the liquid), then add the carbolic acid and pour the liquid into a vial previously rinsed with boiling, distilled water, which must be well stoppered.

Six minims contain about 1 grain of sulphate of quinine.

200. Injectio Quininæ Hypodermica, Seltzer.

℞	Quininæ Sulphatis	gr. 20
	Acidi Lactici	q. s.
	Aquæ Destillatæ	q. s. ad ♏ 100

Dissolve and filter. Five grains contain 1 grain of sulphate of quinine.

V. MIXTURES FOR EXTERNAL OR TOPICAL APPLICATION.

201. Acidum Carbolicum Iodatum.

Iodized Phenol.

℞ Iodi	part.	20
Acidi Carbolici	"	76
Glycerini	"	4

Dissolve the iodine in the carbolic acid with the aid of a gentle heat, then add the glycerin.

202. Aqua Sedativa.

Sedative Water (Raspail's).

℞ Aquæ Ammoniæ	fl ℥	1
Spir. Camphoræ	♏	45
Sodii Chloridi	gr.	240
Aquæ	q. s. ad fl ℥	8

Dissolve and mix. Shake the liquid when it is to be dispensed.

203. Balsamum Styracis.

℞ Styracis Purificati	part.	40
Olei Olivæ	"	5
Alcohol	"	5

Mix. Used for the same purposes as Balsam of Peru.

204. "Breast Special." (Char. Hosp.)

℞ Atropinæ Sulph.	gr.	1
Glycerini	fl ℥	1

Dissolve. To be applied to breasts, on lint, to dry up milk. *(Dr. H. J. Garrigues.)*

205. Collodium Carbolisatum.

Carbolic Collodion.

℞ Acidi Carbolici	gr. 30
Olei Ricini	♏ 30
Collodii	q. s. ad fl ℥ 1

Dissolve and mix.

206. Collodium Iodoformatum.

℞ Iodoformi	gr. 5
Collodii Flexilis	gr. 95

Dissolve and mix.

207. Collodium Naphtholatum. (Char. Hosp.)

Naphthol Collodium.

℞ Naphthol	gr. 30
Olei Ricini	♏ 30
Collodii	fl ℥ 1

Dissolve and mix. *(Dr. Chas. W. Allen.)*

208. Collunarium Quininæ.

Quinine Nasal Douche.

℞ Quininæ Sulphatis	gr. 1
Sodii Chloridi	gr. 30
Aquæ	fl ℥ 1

Dissolve. Used in nasal catarrh, hay fever, etc., a little being placed in the palm of the hand and drawn up the nose or applied as a spray.

209. Collyrium Atropinæ.

℞ Atropinæ Sulphatis	gr. 2
Aquæ	fl ʒ 1

Dissolve. Two drops to be put into the eye three times daily, in iritis and keratitis.

(Dr. W. F. Mittendorf.)

Note.—To prevent this solution from spoiling, 5 grains of boric acid may be dissolved in each fluid ounce.

210. Collyrium Plumbi et Opii. (Bureau O. D. P.)

℞ Liquor. Plumbi Subacet.	fl ʒ 2
Vini Opii	♏ 20

Mix. Add six drops of this mixture, previously well shaken, to half a tumblerful of water, and bathe the eyelids six times daily with it. In blepharadenitis.

(Dr. W. F. Mittendorf.)

211. Embrocatio Iodi, McCready. (Bureau O. D. P.)

McCready's Paint.

℞ Chloroformi	fl ʒ 1
Tinct. Aconiti	
Tinct. Iodi Comp.	*āā* fl ʒ 2

Mix.

212. Embrocatio Iodi et Tiglii. (Bureau O. D. P.)

Carson's Paint.

℞ Olei Tiglii	♏ 30
Ætheris Fortioris	♏ 60
Tinct. Iodi Comp.	fl ʒ 2½

Mix.

213. Emulsio Camphorata. (Char. Hosp.)

℞ Camphoræ	gr.	240
Mucilag. Acaciæ	fl ℥	1
Aquæ	fl ℥	4

Triturate the camphor, if necessary with the intervention of a little ether, to a moderately fine powder, and gradually rub it with the mucilage and water, to form an emulsion. Shake the mixture well, before dispensing.

To be applied, on absorbent cotton, to gangrenous bedsores.

(Dr. H. J. Garrigues.)

214. Gargarisma Aluminis Ferrati Compositum.

(Bureau O. D. P.)

℞ Ferri et Ammonii Sulph (U.S. Ph.)		
Potassii Chloratis	*āā* ℥	1
Aquæ	fl ℥	16

Dissolve. Used as a gargle, mornings and evenings. In subacute pharyngitis, in ear troubles.

(Dr. W. F. Mittendorf.)

215. Gargarisma Boracis.

℞ Sodii Boratis	℥	2
Glycerini	fl ℥	1
Aquæ Rosæ	q. s. ad fl ℥	8

Dissolve and mix.

216. Glyceritum Acidi Tannici.

GLYCERITE OF TANNIC ACID.

℞	Acidi Tannici	ʒ 1
	Glycerini	ʒ 5

Weigh both ingredients into a porcelain or enamelled capsule, avoiding contact with metallic utensils, and apply the heat of a water-bath, until complete solution has taken place. Then transfer the solution to bottles.

Note.—The two ingredients are to be taken by weight.

217. Glyceritum Fellis Bovis.

GLYCERITE OF OX-GALL.

℞	Fellis Bovis Inspissati	ʒ 3
	Glycerini	fl ʒ 2
	Acidi Salycilici	gr. 10
	Aquæ	q. s. ad fl ʒ 6

Mix the inspissated ox-gall with the glycerin, salicylic acid, and 1 fluidounce of water, and heat on a water-bath until the ox-gall is dissolved. Then allow it to cool, and add enough water to make it measure 6 fl. oz.

Note.—This glycerite is furnished ready-made by the General Drug Department.

218. Glyceritum Gelatini.

GLYCERITE OF GELATIN. GLUE BURN MIXTURE.

℞	Gelatini Albi	ʒ 7½
	Glycerini	fl ʒ 1
	Acidi Carbolici	ʒ 2
	Aquæ	fl ʒ 16

Soak the glue in the cold water until it is soft; then heat it on a water-bath until it is melted. Add the gly-

cerin and continue heating until a firm, glossy skin begins to form on the surface of the mixture, in the intervals of stirring. Now add the carbolic acid and mix intimately.

Note.—This mixture may be kept ready prepared, and is best preserved in well-closed glass or porcelain jars. When it is wanted for use, it is heated on a water-bath until just melted, and applied with a soft, flat brush over the burned part, where it will form a strong, flexible skin.

219. Glyceritum Hydrargyri Bichloridi.

℞ Hydrargyri Chloridi Corrosivi		℈ 8
Ammonii Chloridi		℈ 1
Glycerini	q. s. ad fl	℥ 16
Rosanilinæ Hydrochloratis		q. s.

Add the corrosive chloride of mercury, reduced to powder, and the chloride of ammonium, to 7 fluidounces of glycerin, previously heated on a water-bath. Continue the heat, constantly stirring with a glass rod, until solution has taken place. Allow the liquid to cool, then measure it, and make it up, with glycerin, to 16 fluidounces. Finally, tint it with a small quantity of solution of fuchsine (rosaniline hydrochlorate), so as to impart to it a pinkish color.

Note.—This glycerite is furnished ready-made by the General Drug Department. Every 2 minims contain 1 grain of corrosive sublimate.

220. Glyceritum Sulphuris. (Bureau O. D. P.)

Sulphur Paste.

℞ Sulphuris Sublimati		℈ 1
Ætheris Fortioris	fl	℥ 3
Glycerini	fl	℈ 1

Mix.

221. Injectio Bismuthi Composita. (Bureau O. D. P.)

℞	Zinci Sulphatis	gr. 3
	Bismuthi Subnitratis	℥ 1
	Mucilaginis Acaciæ	fl ℥ 2
	Aquæ	q. s. ad fl ℨ 1

Dissolve and mix.

222. Injectio Hydrargyri Bichloridi. (Bureau O. D. P.)

℞	Hydrargyri Bichloridi	gr. ½
	Aquæ	fl ℨ 4

Dissolve. *(Dr. S. Alexander.)*

223. Injectio Intrapulmonaris. (Char. Hosp.)

℞	Atropinæ Sulphatis	gr. ⅓
	Morphinæ Sulphatis	gr. 4
	Tinct. Iodi	♏ 180
	Acidi Carbolici (liquefacti)	♏ 20
	Glycerini	♏ 120
	Aquæ Destillatæ	q s. ad fl ℨ 2

Dissolve and mix. 20 to 30 minims for each injection.

Note.—The alkaloidal salts should be added last, and previously dissolved in some of the water, to avoid producing a precipitate.

(Dr. J. Blake White.)

224. Injectio Quercus, Heaton.

Heaton's Fluid.

℞	Morphinæ Sulphatis	gr. 1
	Extr. Quercus Albæ Fl.	fl. ℥ 3½

Dissolve and mix. Used as an injection, in quantities of 5 or 10 minims, into the inquinal canal, after the reduction of hernia, the object being to cause sufficient inflammation to produce obliteration.

225. Injectio Zinci et Belladonnæ. (Bureau O. D. P.)

℞ Zinci Sulphatis		gr. 10
Extr. Belladonnæ Fl.		♏ 15
Aquæ		fl ʒ 4

Dissolve and mix. *(Dr. H. Raphael.)*

226. Injectio Zinci et Opii. (Bureau O. D. P.)

Bowden's Injection.

℞ Zinci Acetatis		gr. 10
Vini Opii		
Tinct. Catechu Comp.	āā	fl ʒ 2
Aquæ	q. s. ad	fl ʒ 4

Dissolve and mix.

227. Injectio Zinci Sulphocarbolatis.

℞ Zinci Sulphocarbolatis		gr. 12
Aquæ		fl ʒ 3

Dissolve. *(Dr. S. Alexander.)*

228. Irrigatio Hydrastini. (Bell. Hosp.)

℞ Hydrastini Sulphatis (flavi)		ʒ 1
Acidi Borici		ʒ 2
Tinct. Opii		fl ʒ 1
Olei Gaultheriæ		♏ 20
Aquæ	q. s. ad	fl ʒ 128

Dissolve and mix. For irrigating the urethra.

(Dr J. W. S. Gouley.)

Note.—Much confusion exists regarding the terms *hydrastin* and *hydrastine*. Formerly the name *hydrastin* was applied, both commercially, and in eclectic practice, to a product obtained as a yellow precipitate by adding hydrochloric acid to a liquid extract of Hydrastis, or by first precipitating the liquid extract with water and after-

wards treating the precipitate with hydrochloric acid. It has been the custom of the eclectics to apply the name of the plant, changed so as to terminate in—*in*, to so-called "resinoids," or precipitates produced in the alcoholic liquid extracts by mixing them with water, with or without the intervention of acids. The yellow precipitate thus obtained from hydrastis is, in reality, a complex mixture, chiefly consisting of *hydrochlorate of berberine*, which latter alkaloid exists in Hydrastis, along with other principles. Since other acids, besides hydrochloric, have also been used for producing this precipitate, the products are usually distinguished as "*muriate of hydrastin*," "*sulphate of hydrastin*," etc., as the case may be, but all these are yellow and consist mainly of the respective salts of berberine. Hydrastis also contains a white alkaloid, the true *hydrastine* (latinized: *hydrastina*). Most of the recorded therapeutic experience has hitherto been based upon the yellow *alkaloid berberine*, misnamed *hydrastin* (latinized: *hydrastinum*.)

The salt which so far has been used in the above preparation, in the public institutions of this Department, is the commercial yellow "sulphate of hydrastin."

229. Linimentum Aconiti et Belladonnæ Compositum.

(Bureau O. D. P.)

℞	Tinct. Opii	
	Chloroformi	
	Tinct Aconiti	
	Tinct. Belladonnæ	*āā* fl. ℥ ½
	Linim. Saponis	fl. ℥ 2
Mix.		*(Dr. T. W. O. Flinn.)*

230. Linimentum Aconiti et Chloroformi Compositum.

(Bureau O. D. P.)

℞	Tinct. Aconiti	
	Chloroformi	
	Spir. Ammoniæ	
	Olei Thymi	
	Olei Terebinthinæ	*āā* fl. ℥ 1
	Spir. Camphoræ	fl. ℥ 3

Mix.

231. Linimentum Anodynum. (Char. Hosp.)

"Jacob's Oil."

℞ Camphoræ
Chloral — āā ℥ 2
Chloroformi
Ætheris Fortioris — āā fl ℥ 2
Tinct. Opii
Olei Sassafras — āā fl ℥ 1
Linim. Saponis — q. s. ad fl ℨ 16

Dissolve and mix.

232. Linimentum Chloroformi Compositum. (Char. Hosp.)

℞ Chloroformi
Tinct. Opii — āā fl ℥ 2
Linim. Saponis — fl ℨ 1½

Mix.

233. Linimentum "Mott." (O. D. P.)

℞ Chloroformi
Tinct. Aconiti
Tinct. Iodi — āā fl ℨ ½
Lin. Saponis — fl ℨ 2
Aquæ Ammoniæ — fl ℨ ½

Mix, adding the water of ammonia last.

234. Linimentum Opii Compositum.

CANADA LINIMENT.

℞ Tinct. Opii	℥	180
Camphoræ	gr.	30
Alcohol	fl ʒ	1
Olei Menthæ Pip	℥	45
Aquæ Ammoniæ	fl ʒ	1½
Olei Terebinthinæ	q. s. ad fl ʒ	4

Dissolve the camphor and oil of peppermint in the alcohol ; add the oil of turpentine and tincture of opium, and lastly, the water of ammonia.

235. Linimentum Stimulans. (99th St. Hospital.)

℞ Aquæ Ammoniæ		
Olei Terebinthinæ	*āā* fl ʒ	1
Linim. Camphoræ	fl ʒ	2

Add the camphor liniment to the water of ammonia in several portions, shaking after each addition. Lastly add the oil of turpentine.

236. Linimentum Terebinthinæ Acidum.

BRODIE'S LINIMENT.

℞ Acidi Sulphurici	fl ʒ	1
Olei Olivæ		
Olei Terebinthinæ	*āā* fl ʒ	1

Add the acid gradually to the olive oil, stirring in a mortar. When the mixture is cold, gradually add the oil of turpentine and mix.

237. Liquor Boro-Salicylicus.

THIERSCH'S SOLUTION.

℞ Acidi Salicylici	pars	1
Acidi Borici	part.	6
Aquæ	"	500

Dissolve and filter.

Note.—In filtering solutions containing salicylic acid or salicylates, *white* filtering paper, *free from iron*, must be used, to prevent the liquid from acquiring a red color.

238. Liquor Bromi, Smith.

SMITH'S SOLUTION OF BROMINE.

℞ Bromi	℥	1
Potassii Bromidi	℥	½
Aquæ	fl ℥	4

Dissolve the bromide of potassium in the water, add the bromine, agitate, and transfer the mixture to small, glass-stoppered vials.

Used externally in gangrene.

(Dr. J. Lawrence Smith.)

Note.—Bromine vapor is exceedingly irritating to the lungs, and very destructive to the metallic parts of balances. Hence it is preferable, in practice, to use an original bottle or vial of bromine, such as is put up for the market; for instance, one containing, or intended to contain, 1 avoirdupoise ounce. As the actual weight of the contents is, however, very much liable to vary, it is best to proceed in the following manner: Tare an 8-oz. glass-stoppered vial (the stopper being slightly coated with paraffin) carefully on the balance, introduce 3 fl. oz. of water, and tare again. Now, transfer the bottle to a place where bromine vapors will cause no injury to either operator or surroundings, open a 1 oz. vial of bromine and pour the latter into the bottle containing the water, which is then stoppered, and after all external traces of bromine have disappeared, replaced on the balance. The increase in weight represents the amount of bro-

mine contained in it. This is now made the basis of the quantity of the other ingredients of the mixture, the amount of bromide of potassium and of additional water being calculated according to the proportions contained in the formula.

239. Liquor Iodi Carbolatus.

BOULTON'S SOLUTION.

℞ Tinct. Iodi Comp.		♏ 110
Acidi Carbolici liquefacti		♏ 40
Glycerini		fl ℥ 2½
Aquæ	q. s. ad	fl ℥ 16

Mix the tincture with the carbolic acid, liquefied by a gentle heat; then add the other ingredients, and expose the mixture to sun-light until it has become colorless.

Used as a local application in diphtheria.

240. Liquor Iodi Causticus, Churchill.

CHURCHILL'S IODINE CAUSTIC.

℞ Iodi	℥ 1
Potassii Iodidi	℥ 2
Aquæ	fl ℥ 4

Dissolve and mix.

Note.—This preparation should not be confounded with *Tinctura Iodi Churchill* (Churchill's Tincture of Iodine), which will be found under No. 255.

241. Liquor Morphinæ Boratus. (Bureau O. D. P.)

℞ Morphinæ Sulphatis	gr. 1
Acidi Borici	gr. 10
Aquæ	fl ℥ ½

Dissolve. 5 drops to be put into the ear every 3 hours, in acute, purulent otitis.

(Dr. W. F. Mittendorf.)

242. Liquor Picis Alkalinus.

Alkaline Solution of Tar.

℞ Picis Liquidæ		℥ 4
Potassæ		℥ 2
Aquæ	q. s. ad fl	℥ 10

Dissolve the potassa in the water. Shake the solution with the tar, so that the latter may be dissolved, and strain the solution through muslin.

(Dr. L. D. Bulkley.)

243. Liquor Potassii Chloratis et Ferri.

Jacobi's Special.

℞ Potassii Chloratis		gr. 80
Tinct. Ferri Chloridi		♏ 160
Glycerini		fl ℥ 2
Aquæ	q. s. ad fl	℥ 8

Dissolve and mix. Used as gargle, and also internally, in doses of ½ fl oz.

(Dr. Abraham Jacobi.)

244. Liquor Sodii Boratis Compositus.

Dobell's Solution.

℞ Sodii Boratis		
Sodii Bicarbonatis	āā	℥ 2
Glycerini		♏ 240
Acidi Carbolici		gr. 24
Aquæ	q. s. ad fl	℥ 16

Dissolve the salts in about 8 fl. oz. of water, then add the glycerin and the carbolic acid previously liquified by warming, and lastly, enough water to make 16 fl. oz.

Note.—Dr. Dobell's original formula directs the Glycerite of Carbolic Acid of the *Brit. Pharm.* The above given proportions produce practically the same result. In certain cases, Dr. Dobell recommends to replace the borax by chloride of ammonium, chlorate of potassium or other salts.

245. Liquor Zinci et Ferri Compositus (N. F.)

Compound Solution of Zinc & Iron.

Deodorant Solution.

℞ Zinci Sulphatis		
Ferri Sulphatis	āā ʒ	16
Naphthol	gr.	20
Ol. Thymi	♏	60
Ac. Hypophosphorosi Dil. (N. F.)	♏	120
Aquæ	q. s. ad fl ʒ	80

Dissolve the sulphate of zinc and sulphate of iron in 5 pints of boiling water, add the naphthol and oil of thyme, and shake the mixture occasionally in a stoppered bottle, until it is cold. Then add the acid, filter through a wetted filter, and make up with water to 80 fl. oz.

Note.—This solution is used as a simple deodorant or disinfectant, when it is unnecessary or impracticable to use more powerful agents.

246. Lotio Flava.

Yellow Wash.

℞ Hydrarg. Chlor. Corrosivi	gr.	24
Aquæ Bullientis	fl ʒ	½
Liquoris Calcis	q. s. ad fl ʒ	16

Dissolve the bichloride of mercury in the boiling water, and add the solution gradually to enough lime water, under continued agitation, to make 16 fluid-ounces.

247. Lotio Nigra.

BLACK WASH.

℞ Hydrarg. Chlor. Mitis		gr. 64
Aquæ	fl ℥	½
Liquoris Calcis	fl ℥	15½

Mix the calomel with the water, contained in the bottle in which the preparation is to be dispensed. Finally, add the lime water, and agitate thoroughly.

Note. — The sediment in this mixture is so heavy that it can only with difficulty be transferred from a mortar, together with the liquid, into the bottle. For this reason it is preferable to prepare the mixture, as directed above.

248. Lotio Plumbi Composita.

GOULARD'S LOTION, modified.

℞ Liquor Plumbi Subacet.		
Tinct. Opii	*āā* fl ℥	½
Tinct. Arnicæ		
Spir. Camphoræ	*aā* fl ℥	1
Aquæ	fl ℥	8

Mix.

249. Lotio Plumbi et Opii.

℞ Plumbi Acetatis	℥	2
Tinct. Opii	fl ℥	4
Aquæ	q. s. ad fl ℥	16

Dissolve and mix.

250. Lotio Sulphuris Composita. (Bureau O. D. P.)

TAYLOR'S LOTION.

℞	Sulphuris Sublimati	℥ 3
	Spir. Camphoræ	fl ℥ 2
	Sodii Boratis	ʒ 1
	Glycerini	fl ℥ 3
	Aquæ	fl ʒ 6

Dissolve the borate of sodium in the water, add the spirit of camphor, and then incorporate the mixture with the sulphur previously triturated with the glycerin to a homogeneous paste.

251. Mistura pro Ambustis, Buck.

BUCK'S BURN MIXTURE.

℞	Tragacanthæ pulv.	ʒ 2
	Acaciæ pulv.	ʒ 4
	Syrupi Fusci	
	Aquæ Bullientis	āā fl ʒ 16

Mix the tragacanth and acacia with the molasses to a homogeneous paste, then add the boiling water under constant stirring.

252. Oleum Ricini cum Atropina. (Bureau O. D. P.)

"ATROPINE AND CASTOR OIL"

℞	Atropinæ	gr. 2
	Olei Ricini	fl ℥ 1

Triturate the atropine with a little of the castor oil to a smooth paste, then gradually incorporate the remainder of the castor oil, and continue the trituration until the atropine is dissolved.

One drop to be applied to the eye every half hour. In burns of the eye, by lime. *(Dr. W. F. Mittendorf.)*

Note.—The solution of the alkaloid in the oil may be hastened by a gentle heat. The *alkaloid* atropine, and *not* the sulphate or any other salt, must be used for this preparation.

253. Spiritus Ophthalmicus. (Bureau O. D. P.)

℞ Olei Lavandulæ	♏	10
Olei Rosmarini	♏	30
Alcohol	fl ℥	1

Mix. To be applied to the eyelids mornings and evenings. In asthenopic eye-troubles.

(Dr. W. F. Mittendorf.)

254. Tinctura Acidi Borici. (Bureau O. D. P.)

℞ Acidi Borici	gr.	10
Alcohol	fl ℥	½

Dissolve. 10 drops to be put in the ear mornings and evenings. In chronic, purulent otitis.

(Dr. W. F. Mittendorf.)

255. Tinctura Iodi, Churchill. (Bureau O. D. P.)

Churchill's Tincture of Iodine.

℞ Iodi	℥	2½
Potassii Iodidi	℥	½
Aquæ	fl ℥	4
Alcohol	q. s. ad fl ℥	16

Dissolve the iodide of potassium in the water, add the iodine, and lastly, enough alcohol to make the tincture, when completed, measure 16 fl. oz.

Note.—This preparation should not be confounded with Churchill's Iodine Caustic, which see under No. 240.

256. Tinctura Iodi Composita.

Compound Tincture of Iodine (U. S. Ph., 1870.)

℞ Iodi	gr.	240
Potassii Iodidi	gr.	480
Alcohol	fl ℥	16

Dissolve.

257. Tinctura Iodi Decolorata (N. F.)

Decolorized Tincture of Iodine.

℞ Iodi	gr.	610
Sodii Hyposulphitis	gr.	610
Aquæ	fl. ℥	1½
Aquæ Ammon. Fort. (U. S. P.)	fl. ℥	1
Alcohol	q. s. ad fl. ℥	16

Digest the iodine, hyposulphite of sodium and water at a gentle heat, until a perfect solution, of a dark, reddish-brown color, is produced. Then add 2 fl. oz. of alcohol, and afterwards, the stronger water of ammonia. Shake a few minutes until no more bubbles of gas escape, and the liquid has become colorless, with a whitish precipitate (of sulphur) suspended in it. Cool it, if necessary, and add enough alcohol to make 16 fl. oz. Place the bottle containing it in a refrigerator for a few hours, or longer, if convenient, then filter, in a covered funnel, and preserve the liquid for use.

Note.—On prolonged standing a crystalline precipitate of tetrathionate of sodium will usually settle to the bottom. This may be removed by filtration. And a peculiar alliaceous odor will gradually develop, which may be overcome by adding a minute quantity of some suitable flavoring.

The product obtained by this or any other process in which the iodine is "deodorized," no longer contains the iodine in a free state.

258. Tinctura Quillajæ (N. F.)

Tincture of Quillaja (Soap Bark).

℞ Quillajæ	℥	8
Alcohol	fl ℥	16
Aquæ	q. s. ad. fl ℥	48

Place the quillaja (which must be in fine chips, free from powder), in a suitable vessel, with 2 pints of water.

and boil it for fifteen minutes, then strain and add enough water through the strainer to make the strained decoction, when cold, measure 2 pints. Pour this into a bottle containing the alcohol, let the mixture stand twelve hours, then filter it through paper, and add enough water to the filtrate to make it measure 3 pints.

Note.—This tincture is an excellent agent to form emulsions, in presence of water, with many oleaginous, resinous and other similar substances.

259. Tinctura Saponis Viridis Composita (N. F.)

℞ Saponis Viridis	℥	2¼
Ol. Cadini	♏	140
Alcohol	q. s. ad fl ℥	16

Dissolve the green soap in 2 fl. oz. of the alcohol, add the oil of cade, and then enough alcohol to make the product measure 16 fl. oz. Filter.

260. Unguentum Acidi Borici.

"Boric Ointment."

℞ Acidi Borici pulv.	pars 1
Unguenti [*vel* Petrolati]	part. 6

Melt about 1 part of the ointment or petrolatum at a very gentle heat, and triturate with it the boric acid which should be in very fine powder, so that a perfectly homogeneous mass is produced. Then incorporate the remainder of the petrolatum.

261. Unguentum Antihæmorrhoidale.

PILE OINTMENT.

℞	Ceræ Flavæ	part. 4
	Resinæ	" 2
	Adipis	" 6
	Olei Sassafras	pars 1

Melt the wax, resin and lard together at a gentle heat, allow it to cool, and, before it has solidified, incorporate with it the oil of sassafras.

262. Unguentum Calaminæ.

TURNER'S CERATE.

℞	Calaminæ Præparatæ	pars 1
	Unguenti [*vel* Petrolati]	part. 5

263. Unguentum Camphoræ.

℞	Camphoræ	part. 2
	Adipis	" 6
	Ceræ Albæ	pars 1

Melt the white wax and lard at a gentle heat. Then add the camphor, and stir until cold.

264. Unguentum Chrysarobini. (Bureau O. D. P.)

℞	Chrysarobini	gr. 50
	Unguenti [*vel* Petrolati]	gr. 500

265. Unguentum Cocainæ.

℞	Cocainæ Hydrochloratis	gr. 2
	Unguenti [*vel* Petrolati]	℥ 2

To be applied to the conjunctiva every hour, in recent burns or injuries of the eye.

(Dr. W. F. Mittendorf.)

266. Unguentum Hydrargyri et Plumbi.

(Bureau O. D. P.)

℞	Hydrarg. Oxidi Rubri	gr. 2
	Liquor. Plumbi Subacet.	♏ 7
	Unguenti [*vel* Petrolati]	gr. 120

To be applied, at bed-time, to edge of eye-lids, in blepharadenitis.

(Dr. W. F. Mittendorf.)

267. Unguentum Hydrargyri Oxidi Rubri Compositum.

(Bureau O. D. P.)

℞	Ung. Hydrarg. Ox. Rub. (U. S. 10%)	
	Ung. Zinci Oxidi	
	Ung. Acidi Carbolici	*āā* part. æq.

(Dr. G. H. Bosley.)

268. Unguentum Hydrargyri Oxidi Rubri cum Plumbo.

(Bureau O. D. P.)

℞	Hydrarg. Oxidi Rubri	
	Plumbi Acetatis	*āā* gr. 8
	Unguenti [*vel* Petrolati]	℥ 1

Mix intimately.

269. Unguentum Iodoformi et Atropinæ.

(Bureau O. D. P.)

℞	Iodoformi	gr. 30
	Atropinæ Sulphatis	gr. 1
	Unguenti [*vel* Petrolati]	℥ ½

To be applied to the conjunctiva every evening, in chronic phlyctenular ulcers.

(Dr. W. F. Mittendorf.)

270. Unguentum Naphthol. (Char. Hosp.)

℞	Naphthol	gr. 10–30
	Zinci Oxidi	gr. 40
	Amyli	gr. 180
	Unguenti [*vel* Petrolati]	ʒ 1

(Dr. Chas. W. Allen.)

271. Unguentum Physostigminæ.

Unguentum Eserinæ.

℞	Physostigminæ [*vel* Eserinæ] Salicylatis	gr. 1
	Unguenti [*vel* Petrolati]	ʒ 1

To be applied to the eye every four hours, in ulcers of cornea.

(Dr. W. F. Mittendorf.)

272. Unguentum Picis Alkalinum. (Bureau O. D. P.)

℞	Liquor. Picis Alkalini	gr. 60
	Unguenti [*vel* Petrolati]	ʒ 1

273. Unguentum Picis Compositum.

℞	Olei Picis Liquidæ	part. 4
	Ceræ Flavæ	" 26
	Adipis	" 32
	Olei Gossypii	part. 35
	Tinct. Benzoini	" 2
	Zinci Oxidi	" 3

Melt the lard and white wax with the cotton-seed oil at a gentle heat. Then add the tincture of benzoin, and continue heating until all the alcohol has escaped. Next add the oil of tar, and finally, the oxide of zinc, incorporating the latter thoroughly, so that, on cooling, a homogenous ointment may result.

274. Unguentum Sulphuris Compositum.

HEBRA'S (OR WILKINSON'S) OINTMENT.

℞ Calcii Carbonat. Precip.	part.	2
Sulphuris Sublimati	"	3
Olei Cadini	"	3
Saponis Viridis	"	6
Adipis	"	6

Melt the lard at a gentle heat. Then add the green soap and incorporate the other ingredients, stirring until the ointment is cold.

275. Unguentum Zinci et Amyli. (Char. Hosp.)

LASSAR PASTE.

℞ Zinci Oxidi		
Amyli	*ää*	℥ 1
Unguenti [*vel* Petrolati]		℥ 2

276. Unguentum Zinci et Hydrargyri.

(Bureau O. D. P.)

℞ Ung. Zinci Oxidi	℥ 1
Ung. Hydrarg. Nitratis	℥ 1½
Ung. Acidi Carbolici	℥ 4

277. Unguentum Zinci Salicylicum. (Bell. Hosp.)

FRANK'S OINTMENT.

℞ Zinci Oxidi	gr.	180
Acidi Salicylici	gr.	60
Amyli	℥	4
Unguenti [*vel* Petrolati]	℥	8

VII. PILLS.

PILL-EXCIPIENTS.—From the large number of pill-excipients which are in common use, or have been recommended, a few are quoted here as being perhaps the most suitable in general practice.

I. General Excipients.

a. *For dark-colored Pills.*

Extract of Gentian.
Extract of Taraxacum.
Extract of Triticum Repens.

Pills containing no fibrous substance are apt to collapse or to run together. In such cases, powdered liquorice root, or gentian or althæa, etc., etc., should be added.

b. *For light-colored or white Pills.*

1. Tragacanth, powd.	gr.	60
Glycerin,	"	180
Water,	"	80 Mix.

2. Acacia, powd. (or Dextrin),	gr.	90
Glycerin,	av. oz.	1
Glucose, (pure, colorless)	"	4

Triturate the acacia with the glycerin, add the glucose and heat *gently*, until the acacia is dissolved.

3. Tragacanth, powd.	av. oz.	1
Glycerin,	"	4 to 6

Mix. The proportion of glycerin may be varied according to the object or the season.

4. Tragacanth, powd.	av. oz.	1
Acacia, powd.	"	1
Starch, powd.	"	1
Sugar, powd.,	"	3

Mix Use a mixture of equal volumes of glycerin and water to make the mass.

c. *For Quinine Pills.*

1. Sulphate of Quinine,	av. oz. 1
Tartaric Acid,	gr. 75

Make a mass, either with glycerin alone (about 54 grains); or with glycerin 2 parts, water 1 part (q. s.); or with water alone (16 to 20 min.)

2. Glycerite of Tragacanth. See above under b, 1.

3. Sulphate of Quinine,	av. oz. 1
Althæa, powd.	gr. 60
Tartaric acid,	gr. 40
Glycerin,	min. 10
Diluted Sulphuric Acid,	fl dr. 1
Glucose,	q. s.

The Glycerin may be omitted. The object of the acid is to reduce the size of the pills in case this should be required.

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278. Pilulæ Aconitinæ, "Duquesnel."

℞ Aconitinæ cryst. "Duquesnel"	gr. 1
Sacchari Lactis	gr. 50
Glycyrrhizæ pulv.	gr 50
Ext. Gentianæ	q s.

Triturate the aconitine (see under No. 184) thoroughly with the sugar of milk, in a small mortar; gradually mix with it the powdered liquorice root, taking *great care* that the mixture is rendered perfectly uniform. Then mix it with the extract and make 200 pills.

Each pill contains $\frac{1}{200}$ grain of Duquesnel's crystallized aconitine.

279. Pilulæ Aloes et Colocynthidis Compositæ.

"Laxative Pills, 3rd Med. Div., Bell. Hosp."

℞ Aloes		
Ext. Colocynthidis	*āā*	gr. 24
Ext. Hyoscyami		gr. 12
Ext. Nucis Vomicæ		gr. 3
Res. Podophylli		gr. 6

Mix. Divide into 12 pills.

280. Pilulæ Aloes et Nucis Vomicæ.

"Laxative Pills, 4th Med. Div., Bell. Hospital."

℞ Aloes,	gr. 18
Ext. Nucis Vomicæ	gr. 6
Ext. Belladonnæ Alc.	gr. 3

Mix. Divide into 12 pills.

281. Pilulæ Aloes et Podophylli.

"Laxative Pills, 2d Med. Div. Bell. Hosp."

℞ Aloes		gr. 24
Res. Podophylli		
Ext. Hyoscyami		
Ext. Nucis Vomicæ	*āā*	gr. 6
Ext. Belladonnæ Alc.		gr. 3

Mix. Divide into 24 pills.

282. Pilulæ Aloes et Podophylli Compositæ.

Janeway's Pills.

℞ Aloes		gr. 20
Res. Podophylli		gr. 10
Ext. Belladonnæ Alc.		
Ext Nucis Vom.	*āā*	gr. 5

Mix. Divide into 20 pills.

283. Pilulæ Aloes, Ferri et Taraxaci.

℞	Aloes	gr. 60
	Ferri Sulphatis Exsicc.	gr. 120
	Ext. Taraxaci	q. s.

Mix. Divide into 60 pills.

284. Pilulæ Antineuralgicæ, Brown-Sequard.

℞	Ext. Hyoscyami	
	Ext. Conii	āā gr. 40
	Ext. Ignatiæ	
	Ext, Opii	āā gr. 30
	Ext. Aconiti	gr. 20
	Ext. Cannabis Ind.	gr. 15
	Ext. Stramonii	gr. 12
	Ext. Belladonnæ Alc.	gr. 10

Mix. Divide into 60 pills.

Note.—See No. 188: *Injectio Brown-Sequard Hypodermica.*

285. Pilulæ Antineuralgicæ, Gross.

℞	Quininæ Sulphatis	gr. 120
	Morphinæ Sulphatis	gr. 3
	Strychninæ	gr. 2
	Acidi Arseniosi	gr. 3
	Ext. Aconiti	gr. 30

Mix. Divide into 60 pills.

286. Pilulæ Aperientes.

℞	Ext. Aloes	gr. 20
	Rhei pulv.	gr. 10
	Ext. Nucis Vomicæ	gr. 5
	Ext. Taraxaci	gr. 30

Mix. Divide into 20 pills. *(Dr. W. T. Lusk.)*

287. Pilulæ Cardiacæ Tonicæ. (Char. Hosp.)

"Heart and General Tonic Pills."

℞	Strychninæ Sulphatis	gr. 1
	Ac. Arseniosi	gr. ½
	Ferri Sulphat. exsicc.	gr. 18
	Quininæ Sulphatis	gr. 48
	Digitalis pulv.	gr. 12
	[*vel* Caffeinæ	gr. 48]
	Pil. Aloes et Myrrhæ	gr. 6

Mix. Divide into 24 pills. *(Dr. G. A. Dixon.)*

288. Pilulæ Catharticæ Vegetabiles.

Vegetable Cathartic Pills.

℞	Ext. Colocynth. Comp.	gr. 24
	Res. Podophylli	gr. 6
	Ext. Leptandræ	gr. 6
	Abstract. Jalapæ	gr. 12
	Ext. Gentianæ	gr. 12
	Ext. Hyoscyami	gr. 12
	Olei Menthæ Piper.	♏ 3

Mix. Divide into 24 pills.

289. Pilulæ Colchici.

Gout Pills.

℞	Ipecacuanhæ pulv.	
	Aloes	
	Hydrarg. Chlor. Mitis	
	Ext. Colchici Rad. (Acet.)	āā gr. 12
	Ext. Nucis Vomicæ	gr. 3

Mix. Divide into 12 pills. One three times daily, or every three hours, until griping is felt.

13 *(Dr. A. L. Loomis.)*

290. Pilulæ contra Sudorem. (Bell. Hosp.)

"ANTI-SWEAT PILL."

℞		
	Zinci Oxidi	gr. 2
	Ext. Belladonnæ Alcohol.	gr. $\frac{1}{8}$
	Ext. Hyoscyami	gr. $\frac{1}{2}$

Mix. One pill.

Note.—The oxide of zinc may be increased to 5 grains, the extr. of belladonna to 1-4th gr., and the ext. of hyoscyamus to 1 grain.

291. Pilulæ Cupri et Morphinæ. (Char. Hosp.)

℞		
	Cupri Sulphatis	
	Morphinæ Sulphatis	*āā* gr. 1
	Picis Liquidæ	gr. 10
	Iodoformi	gr. 5
	Pilulæ Scillæ Comp.	gr. 30

Mix. Divide into 10 pills. One to be taken night and morning. To moderate expectoration in phthisis or bronchial catarrh.

(Dr. J. Blake White.)

292. Pilulæ Digitalis Compositæ.

HEIMS' PILL.

℞		
	Quininæ Sulphatis	gr. 20
	Digitalis pulv.	gr. 10
	Ipecacuanhæ pulv.	gr. 5
	Opii pulv.	gr. 5
	Ext. Gentianæ	q. s.

Mix. Divide into 20 pills.

293. Pilulæ Doveri.

℞ Pulv. Ipecac. et Opii	gr. 10
Ext. Gentianæ	q. s.

Mix. Divide into 3 pills.

Note.—These pills can be furnished, ready-made, by the General Drug Department.

294. Pilulæ Duplices. (Char. Hosp.)

Duplex Pill. "Pil. Duo."

℞ Massæ Hydrargyri	gr. 2
Ferri Sulphat. Exsicc.	gr. 1

Mix. One pill.

295. Pilulæ Ferri Carbonatis.

Blaud's (or Ferruginous) Pills.

℞ Ferri Sulphatis	gr. 240
Potassii Carbonatis	gr. 140
Sacchari	gr. 48
Tragacanthæ pulv.	gr. 16
Glycerini	♏ 10
Aquæ	q. s.

Mix. (See *Nat. Form.*) Divide into 96 pills.

296. Pilulæ Ferri, Quininæ et Strychninæ. (Bell. Hosp.)

℞ Quininæ Sulphatis	
Ferri Reducti	*āā* gr. 40
Strychninæ Acetatis	gr. ½
Ext. Gentianæ	q. s.

Mix. Divide into 24 pills.

297. Pilulæ Glonoini.

PILLS OF GLONOIN (OR NITROGLYCERIN.)

℞ Spir. Glonoini (N. F.)
Althææ pulv. *ää* gr. 200
Confect. Rosæ q. s.

Mix the spirit of glonoin intimately with the powdered althæa, and expose the mass to the air until the alcohol has evaporated. Then make a pill-mass by means of the confection of rose, and divide into 200 pills.

Each pill represents $\frac{1}{100}$ grain of nitroglycerin.

298. Pilulæ Hydragogæ.

HEIM'S HYDROGOGUE PILLS.

℞ Cambogiæ
Digitalis pulv.
Scillæ pulv.
Antimon. Sulphurati *ää* gr. 45
Ext. Taraxaci q. s.

Mix. Divide into 125 pills.

299. Pilulæ Hyoscyami, Camphoræ et Morphinæ.

℞ Ext. Hyoscyami gr. 40
Camphoræ gr. 24
Morphinæ Sulphatis gr. 6

Mix. Divide into 24 pills.

300. Pilulæ Laxativæ, Cole.

COLE'S LAXATIVE PILLS.

℞. Ext. Colocynth. Comp. gr. 30
Hydrarg. Chloridi Mitis gr. 10
Res. Podophylli gr. 1

Mix. Divide into 10 pills.

301. Pilulæ Laxativæ, Crane.

CRANE'S LAXATIVE PILLS.

℞	Massæ Hydrargyri	gr. 24
	Aloes	gr. 6
	Olei Tiglii	gtt. 1

Mix. Divide into 12 pills.

302. Pilulæ Laxativæ Post Partum.

BARKER'S "POST PARTUM" PILLS.

℞	Ext. Colocynth. Comp.	gr. 20
	Aloes	gr. 10
	Ext Nucis Vomicæ	gr. 5
	Res. Podophylli	
	Ipecacuanhæ pulv.	*ää* gr. 1
	Ext. Hyoscyami	gr. 15

Divide into 12 pills. *(Dr Fordyce Barker.)*

303. Pilulæ Metallorum. (Bureau O. D. P.)

℞	Quininæ Sulphatis	gr. 60
	Ferri Reducti	gr. 60
	Acidi Arseniosi	
	Strychninæ	*ää* gr. 3
	Confect. Rosæ	q. s.

Mix. Divide into 60 pills.

304. Pilulæ Opii, Belladonnæ et Tiglii.

"LEAD COLIC PILL."

℞	Opii Pulv.	gr. 1
	Olei Tiglii	gtt. 1
	Ext. Belladonnæ	gr. $\frac{1}{6}$

Mix. One pill. *(Dr. A. L. Loomis.)*

305. Pilulæ Opii, Camphoræ et Belladonnæ.

℞	Opii Pulv.	gr. 12
	Camphoræ	gr. 12
	Ext. Belladonnæ Alc.	gr. 2

Mix. Divide into 12 pills.

306. Pilulæ Opii et Camphoræ.

℞	Opii Pulv.	gr. 1
	Camphoræ	gr. 2

Mix. One pill.

307. Pilulæ Opii et Plumbi.

℞	Plumbi Acetatis	gr. 1
	Opii Pulv.	gr. 1

Mix. One pill.

308. Pilulæ Opii et Tannini.

℞	Opii Pulv.	gr. 1
	Acidi Tannici	gr. 2

Mix. One pill

309. Pilulæ Podophylli, Belladonnæ et Capsici.

Squibb's Laxative Pills.

℞	Res. Podophylli	gr. 36
	Ext. Belladonnæ Alc.	gr. 18
	Capsici pulv.	gr. 72
	Sacchari Lactis	gr. 144
	Acaciæ pulv.	gr. 36
	Glycerini	♏ 40
	Syrupi	q. s.

Mix. Divide into 144 pills.

310. Pilulæ Podophylli Compositæ.

℞	Res Podophylli	gr. 24
	Cambogiæ	gr. 60
	Aloes	gr. 240
	Hydrarg. Chlor. Mitis	
	Zingiberis pulv.	
	Capsici pulv.	*āā* gr. 120
	Ext. Taraxaci	q. s.

Mix. Divide into 240 pills. *(Dr. E. G. Janeway.)*

311. Pilulæ pro Subinvolutione. (Bell. Hosp.)

℞	Ferri Reducti	
	Quininæ Sulphatis	*āā* gr. 48
	Ergotini Purificati	gr. 24
	Strychninæ Sulphatis	gr. ½
	Ext. Gentianæ	q. s.

Mix. Divide into 24 pills.

Note.—The proportions of reduced iron and sulphate of quinine are sometimes altered. "Ergotin" is a name applied, *not* to an active principle, but to a purified extract of ergot, in which a large proportion of the inert constituents has been removed by means of alcohol.

312. Piluiæ Quadruplices.

Quatuor Pills. Pilulæ Ferri et Quininæ Compositæ.

℞	Ferri Sulphatis Exsicc.	
	Quininæ Sulphatis	
	Aloes	*āā* gr. 20
	Ext. Nucis Vomicæ	gr. 5
	Ext. Gentianæ	q. s.

Mix. Divide into 20 pills.

313. Pilulæ Quininæ et Ferri.

℞ Quininæ Sulphatis gr. 40
Ferri Sulphatis Exsicc. gr. 20
Ext. Nucis Vomicæ gr. 5

Mix. Divide into 20 pills.

314. Pilulæ Rhei et Aloes Compositæ.

"Rag's Pills."

℞ Rhei pulv.
Aloes
Gentianæ pulv.
Saponis pulv. *āā* gr. 20

Mix. Divide into 20 pills.

315. Pilulæ "Segur."

Segur's Pills.

℞ Aloes gr. 60
Ext. Colocynth Comp.
Ext. Hyoscyami *āā* gr. 30
Ext. Nucis Vomicæ gr. 15

Mix. Divide into 30 pills.

316. Pilulæ Tonicæ Alterativæ. (Clar. Hosp.)

℞ Picis Liquidæ
Iodoformi *āa* gr 12
Ext. Cannabis Ind. gr. 4

Mix. Divide into 12 pills.

(Dr. J. Blake White.)

317. Pilulæ Townsend.

Townsend's Pills.

℞ Massæ Hydrargyri
Cambogiæ
Ext. Aloes
Zingiberis pulv. ăă gr. 30
Olei Menthæ Pip. ♏ 4
Tinct. Aloes q. s.

Mix. Divide into 24 pills.

318. Pilulæ Triplices.

Triplex Pill.

℞ Aloes
Scammonii
Massæ Hydrargyri ăă gr. 4
Olei Tiglii ♏ 2
Olei Cari ♏ 10
Tinct. Aloes et Myrrhæ q. s.

Mix. Divide into 40 pills. *(Dr. John W. Francis.)*

319. Pilulæ "Walker."

Walker's Pills.

℞ Ext. Nucis Vomicæ
Ext. Belladonnæ Alc. ăă gr. 5
Ferri Sulphat. Exsicc.
Ext. Aloes ăă gr. 10

Mix. Divide into 20 pills. *(Dr. H. F. Walker.)*

VIII. POWDERS.

320. Calomel et Naphthalinum. (Bureau O. D. P.)

℞ Hydrarg. Chloridi Mitis
Naphthalini Deodorati āā gr. 30

Mix. For external use. *(Dr. S. Alexander.)*

321. Pulvis Acidi Borici et Iodoformi. (Bureau O. D. P.)

℞ Acidi Borici gr. 180
Acidi Tannici gr. 10
Iodoformi gr. 60

Mix. To be applied, once a day, to everted and granulated eyelids. *(Dr. W. F. Mittendorf.)*

322. Pulvis Bismuthi Alkalinus. (Bureau O. D. P.)

"Pulvis Trousseau." Trousseau's Powders.

℞ Bismuthi Subnitratis
Sodii Bicarbonatis
Cretæ Preparatæ āā gr. 5

Mix. One dose.

323. Pulvis Bismuthi Compositus. (Bureau O. D. P.)

℞ Bismuthi Subnitratis
Sodii Bicarbonatis
Sacchari pulv.
Acaciæ pulv.
Zingiberis pulv. āā part. aequ.

Mix. *Dose*—A tablespoonful, for adults, in dyspepsia. *(Dr. W. E. Wheelock.)*

324. Pulvis Boro-Salicylicus.

THIERSCH'S POWDER.

℞ Acidi Borici	gr. 240
Acidi Salicylici	gr. 30

Mix.

Note.—The proportions of the ingredients are sometimes varied.

325. Pulvis Bismuthi, Cretæ et Zingiberis. (Bell. Hosp.)

℞ Bismuthi Subnitratis	
Cretæ Preparatæ	āā gr. 5
Zingiberis pulv.	gr. 2

Mix. One dose.

326. Pulvis Bismuthi et Pepsini. (Bureau O. D. P.)

℞ Bismuthi Subnitratis	ʒ 4
Pepsini puri pulv.	gr. 30

Mix. Divide into 30 powders. *Dose*—One powder before each feeding. For infants affected with indigestion and diarrhœa. *(Dr. J. Lewis Smith.)*

327. Pulvis Cerii et Bismuthi Compositus.

℞ Cerii Oxalatis	gr. 3
Bismuthi Subnitratis	
Sodii Bicarbonatis	āā gr. 5
Codeinæ	gr. ¼

Mix. One dose.

328. Pulvis Iodoformi Compositus. (Char. Hosp.)

℞ Iodoformi	part. 1
Zinci Carbonatis	part. 3

Mix. To be applied with a blower, or by means of a dusting box, as a dressing in venereal sores, ulcers, etc.

329. Pulvis Iodoformi Dilutus.

℞ Iodoformi	ʒ 2
Acidi Borici	ʒ 3
Naphthalini	ʒ 5
Olei Bergamii	fl ʒ 2

Triturate the naphthalin with the oil of bergamot, then mix with it the iodoform and boric acid, and triturate until a homogenous powder is produced.

Note.—The two preceding formulæ furnish a *diluted* iodoform powder, which may be used to advantage in most cases, in place of undiluted iodoform. The last-mentioned combination has the additional advantage of having the odor of iodoform completely disguised.

330. Pulvis Iodoformi et Tannini. (Bureau O. D. P.)

Pulvis Iodoformi Inodorum.

℞ Iodoformi	gr. 180
Acidi Tannici	gr. 60

Mix. To be applied to ear, mornings and evenings, in granulations of external auditory canal.

(Dr. W. F. Mittendorf.)

Note.—The *Nat. Form.* contains a formula for *Iodoformum Aromatisatum* (Aromatised or Deodorized Iodoform) which is prepared by mixing 1 part of cumarin with 25 parts of iodoform. In place of cumarin, various essential oils may be used—for instance, those of peppermint, cloves, cinnamon, sassafras, etc.

The odor of iodoform may be removed from the hands or from any utensils which it has come in contact with, by washing them with an aqueous solution of tannic acid.

331. Pulvis Morphinæ, Bismuthi et Pepsini. (Bell. Hosp,)

"Ward Powder,"

℞ Pulv. Morphinæ Comp. gr. 30
Bismuthi Subnitratis
Pepsini āā ʒ 2

Mix. Divide into 12 powders.

332. Pulvis Naphthalini Aromaticus.

℞ Naphthalini ʒ 4
Olei Bergamii fl ʒ 1

Mix by trituration. For external use.

333. Pulvis Quininæ Compositus.

Clark's Powder.

℞ Quininæ Sulphatis gr. 10
Capsici Pulv. gr. 3
Opii Pulv. gr. 1

Mix. One dose. *(Dr. Alonzo Clark.)*

334. Pulvis Tannini Compositus. (Bell. Hosp.)

Conway's Special.

℞ Zinci Oxidi
Acidi Tannici āā pars 1
Lycopodii part. 6

Mix.

Note.—In some institutions the following combination is used: Oxide of zinc, 2 parts; tannic acid, 2 parts; boric acid, 1 part; lycopodium, 16 parts.

335. Pulvis Zinci et Amyli.

"Dusting Powder."

℞ Zinci Oxidi	pars 1
Amyli	part. 3

Mix.

Note.—The two preceding preparations are used as dusting powders, in bed-sores, prickly heat, etc.

336. Trituratio Elaterini.

Trituration of Elaterin.

℞ Elaterini crystallisati	gr. 1
Sacchari Lactis	gr. 9

Mix thoroughly by trituration. *Dose*—$\frac{1}{2}$ to 1 grain.

Note.—This preparation is officinal in the U. S. Ph., and is furnished ready-made by the General Drug Department. It is quoted here for the purpose of cautioning the physicians of the Department not to trust to the commercial Elaterium, which has become very unreliable. "Clutterbuck's Elaterium" is still quoted in price-lists, but Dr. Clutterbuck died in 1856, and what is now sold under that name is very variable in strength. The above trituration furnishes a standard substitute for elaterium, of about the same dose as the latter. Care should be taken not to confound the terms *elaterium*, (the crude commercial substance deposited by standing from the juice of the squirting cucumber), and *elaterin*, the name of the active principle contained therein.

IX. MISCELLANEOUS FORMULÆ AND SUPPLEMENT.

337. A-C-E Mixture.

℞	Alcohol	fl ℥ 1
	Chloroformi Purificati	fl ℥ 2
	Ætheris Fortioris	fl ℥ 3

Mix. For Anæsthesia.

338. Antiseptic Catgut.

1. Place raw catgut into oil of juniper for twenty-four hours; then remove it, rinse it with alcohol, and keep it in alcohol until it is wanted for use.

Note.— The sizes of catgut used in surgery are usually designated by numbers, which are, however, not uniform. The finest or thinnest is that known in trade as first or fifth banjo strings: the next, as second banjo string; the next as E violin; and the coarser kinds as A and D violin strings.

339. Antiseptic Gauzes.

a. *Bichloride Gauze.*

Impregnate absorbent gauze with a solution of bichloride of mercury of the strength of 1 in 1000. Wring it out, roll it up, and put it away for use, wrapped in paraffin paper.

It may be rendered less irritating by using a solution of bichloride containing 10 per cent. of glycerin.

Note.— All solutions of bichloride used for antiseptic purposes ought to be faintly tinted with fuchsine, so as to permit the solution, as well as the fabrics impregnated with it, to be distinguished, by their pinkish tint, from others.

Absorbent or hospital gauze is any kind of loosely woven muslin, completely deprived of fatty matter by repeated treatment with caustic alkalies, and subsequent washing. It is also usually bleached with chloride of lime, but must retain no traces of foreign soluble matters.

b. *Boric Acid Gauze- Borated Gauze.*

Make a solution of 1 part of boric acid in 10 parts of boiling water. Saturate absorbent gauze with the solution, withdraw it, wring it out gently, only enough to keep the liquid dripping from it, and dry it. If no artificial drying appliance is available, such as heated rollers, the fabric should be hung up in a horizontal position, to prevent the solution from draining more to one side than the other.

Note.— The boric acid, which crystallizes on cooling, is apt to fall off the fabric when dry. This may be somewhat prevented by adding to the solution a little tincture of benzoin or a small quantity of a solution of shellac in borax.

c. *Carbolized Gauze* (AFTER LISTER).

Melt together 5 parts of resin, 7 parts of paraffin, and then add 1 part of carbolic acid. Impregnate loosely woven muslin with the mixture, in a properly arranged steam chamber, where the escape of carbolic acid vapors can be prevented. Remove the impregnated gauze after a few hours, wrap it in paraffin paper, and keep it in air-tight tin boxes.

d. *Carbolized Gauze* (AFTER BRUNS).

Dissolve 25 lbs. of resin in 13 gallons of alcohol; then add 5 lbs. of castor oil, 7 lbs. of carbolic acid, and 1 lb of tincture of benzoin. Soak in this solution folded pieces of gauze muslin of suitable size (about 7 to 12 yards in length), and after they have been thoroughly saturated, pass them through a cloth-wringer to press out the excess of liquid. Let the pieces be spread out and stretched by two persons holding the ends, and let them be swung about for a few minutes, until the remaining alcohol has nearly evaporated, and the fabric

feels only slightly damp. Then roll or fold them tightly, wrap them in paraffin paper, and keep them in air-tight boxes.

Note.—The commercial brands known as "Stillwater" or "Lehigh E" muslin are the most suitable for this purpose. They need not be rendered absorbent previous to being impregnated with the liquid above directed. The alcohol may be replaced by wood-spirit, benzin, or other volatile solvents. But care must be taken to dissipate all traces of these solvents, so far as they are odorous. It is usually necessary to restore some of the carbolic acid, if any notable quantity has escaped, by exposing the fabric to the vapor of the acid before it is wrapped and put away.

e. *Iodoform Gauze.*

1. Dissolve 4 parts of iodoform in 16 parts (by weight) of ether. Then add 16 parts of alcohol, 2 parts of tincture of benzoin, and 2 parts of glycerin.

When preparing iodoform gauze at the bedside, pour such amount of the above solution (which is inflammable) as will contain the amount of iodoform to be incorporated with the gauze, into a wide beaker or other suitable vessel, and immerse the requisite quantity of absorbent gauze in it, so that it may completely soak up the liquid, and will be uniformly impregnated with it. Then remove it, dry it as far as necessary by opening it out and swinging it about, and then apply it, or wrap it in paraffin paper, and keep it in air-tight boxes. The gauze should not be exposed to sunlight.

Note.—Supposing a 10 per cent. iodoform gauze is to be prepared. As the above solution contains 10 per cent. of iodoform, weigh out 100 parts of it; also weigh out 88 parts of absorbent gauze, and make the latter take up the whole of the former. On drying, the gauze will retain the 10 parts of iodoform and the 2 parts of glycerin, and it will, therefore, be a 10 per cent. iodoform gauze,

2. In some institutions, iodoform gauze is prepared by placing bichloride gauze into a mixture of equal volumes of alcohol and glycerin, wringing it out dry, and then rubbing any desired quantity of iodoform into it.

Note.—About removal of the odor of iodoform from the hands, etc., see note to No. 330.

f. *Naphthalin Gauze.*

Place absorbent gauze into a saturated solution of naphthalin in alcohol. Wring it out, dry it, and put it away in tightly closed boxes.

Note.—When a prepared antiseptic gauze is to contain a definite proportion of the antiseptic agent, the gauze must be weighed, and then impregnated with such a proportion of the antiseptic solution as will correspond to the desired percentage. This is done either by making the weighed gauze absorb the whole quantity of liquid containing the desired amount of the antiseptic (as, for instance, in the case of iodoform gauze, No. 439, e, 1), or the gauze is supersaturated with a solution of known strength, and afterwards pressed until it retains just the amount of antiseptic desired.

340. Antiseptic Silk.

Boil the silk for 20 minutes in water. Then remove it, wring it out or press it, and place it into a solution of bichloride of mercury of the strength of 1 in 500

341. Antiseptic Solutions.

PRELIMINARY NOTICE.—It is often required to prepare for immediate use a solution of a certain strength, designated either by percentage, or by such terms as "1 in 1,000," "1 in 1,500," etc. When great accuracy is required, or when the solvent is one which is much lighter or heavier than water, such solutions must be made by *weight*. When the solution is aqueous, however, and a fair approximation to the exact strength designated is sufficient for all practical purposes, the solution may be made in a more expeditious manner, by making it up to a definite *measure*.

The following table will give, at a glance, the quantities of any *solid* in *grains*, or of any *liquid* in *minims*, required to prepare a pint of a solution approximately of the desired strength.

TO MAKE 1 PINT OF A SOLUTION

required to contain of a certain drug		*take of the drug*	
1 in 10000		0 7	(1) GRAINS OR MINIMS.
1 " 5000		1 4	(1½) " "
1 " 4000		1 8	(2) " "
1 " 3000		2 4	(2½) " "
1 " 2500		2 9	(3) " "
1 " 2000		3 6	(3½) " "
1 " 1500		4 8	(5) " "
1 " 1000	or $\frac{1}{10}$ PER CT	7 2	(7) " "
1 " 500	" $\frac{1}{5}$ "	14 5	(14½) " "
1 " 400	" $\frac{1}{4}$ "	18	" "
1 " 300	" $\frac{1}{3}$ "	24	" "
1 " 200	" $\frac{1}{2}$ "	36	" "
1 " 100	" 1 "	72	" "
1 " 50	" 2 "	144	" "
1 " 40	" 2½ "	180	" "
1 " 33	" 3 "	220	" "
1 " 30	" 3½ "	240	" "
1 " 25	" 4 "	288	" "
1 " 20	" 5 "	365	" "
1 " 10	" 10 "	720	" "
1 " 5	" 20 "	1440	" "
1 " 2	" 50 "	3600	" "

Supposing a 1 per cent. solution of carbolic acid is to be made, then take 72 minims of crystallized carbolic acid, just sufficiently heated to render it liquid (using a minim graduate which had previously been warmed), and dissolve it in enough water to make 1 pint. This will be approximately correct. For absolute correctness the carbolic acid must be *weighed* (72 grains).

If a 1 in 1000 solution of bichloride of mercury is to be made, dissolve 7.2 grains of the salt in enough water to make 1 pint.

Under ordinary circumstances, it is not necessary to use the small fractions, but the quantities may be rounded off as shown by the figures in parentheses.

Note.—1 pint of water measures 7,680 minims, but weighs only 7,291 grains. It is upon the *weight* of 1 pint of water that the above given proportions are based.

a. ***Solution of Carbolic Acid.***

A saturated solution of pure, crystallized carbolic acid in water, at the ordinary temperature, contains about 5 per cent. of the acid, or 1 part in 20 parts.

b. ***Solution of Boric Acid.***

1 part of boric or boracic acid is soluble in 25 parts of water, at 59° F., and in 3 parts of boiling water.

A cold, saturated, aqueous solution, therefore, contains 4 per cent of the acid.

c. ***Solution of Bichloride of Mercury.***

1 part of bichloride of mercury is soluble in 16 parts of water at 59° F., and in two parts of boiling water. It is also soluble in 3 parts of cold, and 1.2 parts of boiling alcohol.

A cold, saturated aqueous solution, therefore, contains 6¼ per cent. of the salt.

Note.—All solutions containing bichloride of mercury, even those used for preparing bichloride gauze, ought to be distinguished by being faintly tinted with fuchsine, to prevent mistakes at the bedside. (See No. 439, a., Note: and No. 219: *Glyceritum Hydrargyri Bichloridi.*)

d. ***Solution of Naphthol.***

1 part of Beta-naphthol is soluble in about 1,000 parts of cold water.

e. *Solution of Salicylic Acid.*

1 part of salicylic acid is soluble in 450 parts of water at 59° F., and in 14 parts of boiling water. Also in 2½ parts of cold and in less than 1 part of boiling alcohol.

342. Antiseptic and Bleached Sponges.

Deprive the sponges of sand and dirt by beating and picking, and then wash them thoroughly in water. Wring them out and transfer them to a 1 per cent. aqueous solution of permanganate of potassium, in which they should be well worked about. Remove them after about 1 hour, wash them thoroughly with water, and squeeze out the latter as much as possible. Then put them into a solution of hyposulphite of sodium, containing ½ pound in 1 gallon, to which some hydrochloric acid (1 fl. oz. for every gallon of the solution) had been added just previous to the immersion of the sponges. Leave them in this liquid for 15 minutes, occasionally squeezing them and working them about. Finally, take them out, wash them thoroughly, and, having wrung them out keep them in a 1 in 40 solution of carbolic acid.

Note.—Some sponges contain a large reddish core, which is not always bleached by one treatment. By repeating the operation the desired result is usually accomplished. (See *New Remedies*, 1883, 214; also *National Formulary*, under *Spongia Decolorata*.)

343. Aqueous Solutions for Convenience in Dispensing.

Note.—These solutions should not be kept ready-made unless there is a constant demand for them, so that they will have to be frequently renewed. Some of them are saturated or nearly so; the others are of a strength established by long custom. Experience has shown that it is not superfluous to point out that the proportions refer to troy *weight* and apothecaries' *measure*. One pint of a solu-

tion of iodide of potassium of the strength of 1 grain in 1 minim, therefore, requires 16 *troy ounces* of the salt to be dissolved in enough water *to make* 16 *fluidounces*. That is, it requires 17 avoirdupois ounces and 242 grains of the salt to make 1 pint of solution. The "pound to pint" system is, therefore, incorrect, and will not be tolerated in this Department.

Acidum Boricum	tr. oz.	1 in	30 fl. oz
" Carbolicum[1])	"	1 "	20 "
" " crudum[2])	"	1 "	200 "
Alumen	"	1 "	12 "
Ammonii Bromidum	"	1 "	2 "
" Carbonas	"	1 "	4 "
" Chloridum	"	1 "	4 "
Antipyrinum	"	1 "	2 "
Chloral	"	1 "	2 "
Cinchoninæ Sulphas[3])	"	1 "	2 "
Cinchonidinæ Sulphas[3])	"	1 "	2 "
Magnesii Sulphas	"	1 "	2 "
Plumbi Acetas	"	1 "	2 "
Potassii Acetas[4])	"	1 "	1 "
" Bicarbonas	"	1 "	4 "
" Bromidum	"	1 "	4 "
" Chloras[6])	"	1 "	16 "
" Iodidum	"	1 "	1 "
Quininæ Sulphas[3])	"	1 "	2 "
Sodii Bicarbonas	"	1 "	12 "
" Boras	"	1 "	16 "
" Bromidum	"	1 "	2 "
" Iodidum	"	1 "	1 "
" Chloras[6])	"	1 "	2 "
" Salicylas[5])	"	1 "	2 "
Zinci Acetas	"	1 "	4 "
" Sulphas	"	1 "	4 "

1. This is the usual strength kept in stock. It should be carefully labelled.

2. For disinfection. But it should be stated that this solution is too weak to destroy all forms of micro-organisms.

3. These solutions are to be prepared with the aid of diluted sulphuric acid.

4. A saturated solution of this salt in water is not quite of the strength of 1 grain in 1 minim, but approximately so.

5. This should be tested for its reaction. If it is found alkaline, it should be slightly acidulated with acetic acid. Even a neutral solution had better be thus acidulated, to prevent it from darkening. No iron utensil or filtering paper containing iron (such as the common gray filters) should be brought in contact with salicylic acid or salicylates, as they would become reddened by the iron.

6. It should be remembered that chlorate of *sodium* is *very* soluble in water, 1 in about 1.1 part, while chlorate of *potassium* is much less soluble, about 1 in 16 parts. The former salt is in many cases preferable to the latter.

344. Explosive Mixtures.

From the large number of substances or combinations of substances which are liable to ignite or explode under the influence of various causes, the following deserve mention here, as they are of more frequent occurrence in prescriptions than others.

Note.—A more complete list of them will be found in *New Remedies* for 1878, pg. 165.

1. Chlorate of Potassium.

If this is triturated with readily oxidizable or combustible substances, such as sugar, tannic or gallic acids, dry vegetable powders, hypophosphites, sulphur, ferrocyanide of potassium, etc., etc., an explosion will result. The same will happen if sulphuric acid be dropped on a mixture of these substances with the salt.

In this Department, chlorate of potassium should *never* be prescribed in form of *powder*, in combination with any other substance.

A mixture of chlorate of potassium, tincture of chloride of iron and glycerin, has been known repeatedly to explode, if the quantity of chlorate was large.

2. Chorate of Sodium

Requires the same precautions as the preceding.

3. Permanganate of Potassium

Should never be mixed, either dry or in solution, with readily oxidizable or combustible substances, such as glycerin, alcohol, reduced iron, etc., etc.

4. Chromic Acid

Behaves like the preceding in its tendency to part with its oxygen. The battery liquid prepared from bichromate of potassium and sulphuric acid has several times caused an explosion of a battery, probably through the accidental introduction of some readily oxidizable matter.

5. Oil of Turpentine and other volatile Hydrocarbons

Are liable to explode or ignite when brought in contact with strong nitric or sulphuric acid, iodine, bromine, etc.

6. Iodine,

When brought in contact with strong water of ammonia, may produce the explosive iodide of nitrogen. In combination with ammoniated mercury it will, under certain conditions, produce an explosion. (See *New Remedies*, 1876, 40.)

7. Nitrate of Silver

Should never be combined with organic substances, or with easily reducible inorganic substances. If the reduction takes place rapidly, an explosion may result.

8. Nitric & Nitrohydrochloric (Nitromuriatic) Acids

Are apt to cause a violent reaction, and in a closed bottle an explosion, when combined with oxidizable substances.

9. Borax, Bicarbonate of Sodium, Glycerin and *Water.*

When these are mixed, one-half of the carbonic acid of the bicarbonate will be set free. This reaction must be allowed to terminate before the bottle containing the mixture is stoppered.

10. Chloride of Lime,

When combined with glycerin, or sulphate of ammonium, or honey, evolves a gas which, if confined, will fracture the bottle.

11. Spirit of Nitrous Ether

Will react (produce effervescence, etc.) with certain substances or preparations, for instance with Fluid Extract of Uva Ursi.

345. Fehling's Solution.

(Reagent for Glucose.)

Fehling's Solution, completely mixed and ready for use, cannot be kept long without change. For this reason it is supplied by the General Drug Department in two separate portions or solutions, of which equal measures are to be mixed when the reagent is to be used.

1. The Copper Solution.

Dissolve 34.64 grammes (or 505 grains) of pure crystallized sulphate of copper in enough distilled water to make 500 cubic centimeters (or 16 fluidounces).

2. The Rochelle Salt Solution.

Dissolve 173 grammes (or 2520 grains) of pure recrystallized Rochelle salt, and 60 gm. (2 troy oz.) of caustic soda (U. S. Ph.) in enough distilled water to make 500 cubic centimenters (or 16 fluidounces).

For use, measure equal volumes of each solution, and mix them by pouring the copper solution into the Rochelle salt solution—*not* vice versa.

10 cub. cent. of the mixture correspond to 0.05 gm of glucose.

210 minims of the mixture correspond to 1 grain of glucose.

346. Liquor Potassii Arseniatis et Bromidi.

LIQUOR ARSENII BROMIDI, CLEMENS.

CLEMENS' SOLUTION.

℞ Acidi Arseniosi		
Potassii Bicarbonatis	*āa*	gr. 73
Bromi		gr. 117
Aquæ	q. s. ad fl ℥	16

Boil the arsenious acid with the bicarbonate of potassium and 2 fluidounces of water until solution is effected. Allow to cool, and add 10 fl. ounces of water, then the bromine, and, lastly, enough water to make 16 fl. oz. Let the mixture stand a few hours, agitating occasionally, then filter.

Note.—This solution contains an amount of arsenic in combination, representing, approximately, 1 per cent. of arsenious acid.

347. Liquor Atropinæ et Agaracini. (Bell. Hosp.)

℞ Agaricini		gr. 10
Atropinæ Sulphatis		gr. 1
Acidi Sulphurici Arom.		♏ 1200

Dissolve and filter. *Dose*—10 minims, containing $\frac{1}{120}$ gr. of sulphate of atropine, $\frac{1}{10}$ gr. of agaricin and 10 min. of aromatic sulphuric acid. To be administered in syrup or simple elixir. Used to prevent or allay sweating after administering antipyrin or other antipyretics; also, in cases of phthisis.

Note.—The agaricin to be used is the pure *white* agaricin of Merck This is, properly speaking, agaric acid.

348. Liquor Electropœicus.

BATTERY FLUID.

A. For the Carbon and Zinc Battery.

1. For Ordinary Use.

Bichromate of Potassium (*or* Sodium)	6 troy oz.
Sulphuric acid, commercial	5 fl. oz.
Water, cold	3 pints.

Pour the sulphuric acid upon the powdered bichromate, and stir occasionally, during one hour. Then slowly add the water.

2. For use with the Galvano-Cautery.

Bichromate of Potassium (*or* Sodium)	6½ av. oz.
Sulphuric acid, commercial	13 fl. oz.
Water, cold	3 pints.

B. For the Leclanché Battery.

Chloride of Ammonium	6 av. oz.
Water	20 fl. oz.

Dissolve.

349. Liquor Hypophosphitum Compositus. (Bell. Hosp.)

℞	Calcii Hypophosphitis	gr. 640
	Sodii Hypophosphitis	gr. 384
	Potassii Hypophosphitis	gr. 128
	Liq. Ferri Hypophosphitis	♏ 384
	Aquæ	q. s. ad fl ℥ 32

Dissolve and filter. *Dose*—1 to 4 fluidrachms.

(Dr. W. M. Polk.)

Note.—The solution of hypophosphite of iron is that of the *National Formulary*, 6 minims of which contain 1 grain of the salt.

350. Liquor Morphinæ Sulphatis "U. S."

"United States Solution of Morphine."

℞ Morphinæ Sulphatis	gr. 1
Aquæ Destillatæ	fl ʒ 1

Dissolve.

Note.—This is to be always dispensed, in this Department, in a flint-glass (colorless) poison-bottle. Magendie's solution always in a *blue* poison-bottle.

351. Liquor Sodii Salicylatis.

To prepare a solution of salicylate of sodium of a given strength, from salicylic acid and bicarbonate of sodium, the following proportions are required, in which the acid is always slightly in excess.

Salicylic Acid.	Bicarbonate of Sodium.	Make Salicylate of Sodium.
90 grains.	50 grains.	100 grains.
170 "	100 "	200 "
260 "	150 "	300 "
345 "	200 "	400 "
415 "	240 "	480 "
430 "	250 "	500 "

Note.—The solution should be made so that the acid always predominates, otherwise it will gradually turn dark. The acid should first be mixed with the water, and the bicarbonate should be added gradually to it. The darkening of this solution may also be prevented by dissolving in the water a small quantity of hyposulphite of sodium (about 120 grains for each pint of solution.)

352. Morell's Embalming Liquid.

Arsenious Acid	14 parts.
Soda (caustic)	7 "
Carbolic acid,	a suff. quantity.
Water,	enough to make 100 parts.

Dissolve the arsenious acid and the caustic soda in 20 parts of water, with the aid of heat. Allow the solution to cool, and then add to it just enough carbolic acid to render it opalescent. Finally, add enough water to make the product weigh 100 parts.

Used for embalming, and for preserving anatomical specimens.

353. Mueller's Fluid.

Bichromate of Potassium	2 to 2½ parts
Sulphate of Sodium	1 part
Water, enough to make	100 parts

Dissolve. Used for hardening and preserving anatomical specimens.

354. Saturation Tables.

The following two tables give the equivalent quantities of the more important acids and alkalies required to saturate, respectively, 10 parts by weight of each.

Where a percentage figure is given behind the name of an acid or alkali, this indicates the percentage strength of pure acid or alkali required by the U. S. Pharmacopœia.

I. Saturation Table for Acids.

10 Parts of any of the following Acids	require for saturation the following parts of					
	Ammonium Carbonate.	Magnesium Carbonate.	Potassium Carbonate 81%	Potassium Bicarbonate.	Sodium Carbonate 96%	Sodium Bicarbonate 99%
Acetic Acid (36%).....	3.14	2.90	5.11	6.00	8.94	5.09
Citric Acid.....	7.48	6.91	12.17	14.29	21.28	12.29
Hydrochloric Acid(31.9%)	4.59	4.24	7.46	8.76	12.53	7.44
Nitric Acid (69.4%).. ..	5.19	5.33	8.45	9.91	14.77	8.41
Salicylic Acid.....	3.79	3.51	12.35	7.25	10.79	6.15
Sulphuric Acid (96%)....	10.25	9.48	16.69	19.59	29.18	16.62
Tartaric Acid.....	6.98	6.45	10.36	13.33	19.86	11.31

II. Saturation Table for Alkalies.

10 Parts of any of the Following Alkalies	require for saturation the following parts of						
	Acetic Acid, 36%.	Citric Acid.	Hydrochloric Acid, 31.9%.	Nitric Acid, 69.4%.	Salicylic Acid.	Sulphuric Acid, 96%.	Tartaric Acid.
Ammonium Carbonate ..	31 85	13.38	21 80	17 34	26 37	9 75	14.33
Magnesium Carbonate....	34 44	14 46	23 57	18.76	28 51	10 54	15 49
Potass'm Carbonate(81%)	20 65	8 22	13 39	10.66	16 20	5 84	8.80
Potassium Bicarbonate..	16 67	7 00	11.44	9.08	13 80	5.10	7.50
Sodium Carbonate (96%).	11 16	4 70	7.66	6.09	9.26	3.42	5.03
Sodium Bicarbonate(99%)	19 64	8 25	13.45	10.70	16.22	6.01	8.84

355. Solubility of the more common Chemicals in Water.

One (1) part, by weight, of the substance is soluble, at about 60° F., in the stated number of parts, by weight, of water.

Note.—Chemicals, which are very little soluble, or practically insoluble in water, and which are never administered or applied in solution, such as subnitrate of bismuth, oxalate of cerium, santonin, etc., are here omitted.

Explanation of Abbreviations: v. s., very soluble.
sp. s., sparingly soluble.
ins., insoluble.

Acid, Arsenious	30 to 80	Antipyrin	0.8
" Benzoic	500	Apomorphine Hydrochlorate	6.8
" Boric	25	Atropine	600
" Camphoric	160	" Sulphate	0.4
" Carbolic	20	Barium Chloride	2.5
" Citric	0.75	" Nitrate	13
" Gallic	100	Betol (Naphthalol)	ins.
" Oxalic	9	Butyl-Chloral (Croton-Chloral)	20
" Pyrogallic	2.3	Cadmium Sulphate	2
" Salicylic	450	Caffeine	75
" Tannic	6	" Sodio-Benzoate	v. s.
" Tartaric	0.7	" Sodio-Salicylate	v. s.
Agaricin	sp. s.	Calcium Bromide	0.7
Alum	10.5	" Chloride	1.5
Aluminium Sulphate	1.2	" Hypophosphite	6.8
Ammonium Benzoate	5	Chloral	v. s.
" Bromide	1.5	Cinchonidine	1680
" Carbonate	4	" Sulphate	100
" Chloride	3	Cinchonine	3700
" Iodide	1	" Sulphate	70
" Nitrate	0.5	Cocaine	704
" Phosphate	4	" Hydrochlorate	v. s.
" Sulphate	1.3	Codeine	80
Ammonium Valerianate	v. s.	" Phosphate	4
Antifebrin (Acetanilide)	180	Copper Acetate	15
Antimony and Potassium Tartrate	17	" Sulphate	2.6

Homatropine Hydrobromate..... 10
Hyoscyamine Sulphate (amorphous)..... v. s.
Glycyrrhizin Ammoniated. v. s.
Iodol..... sp. s.
Iron and Amm. Citrate.... v, s.
" " " Sulphate.. 3
" " " Tartrate.. v. s.
" " Potass. Tartrate. v. s.
" " Quinine Citrate.. v. s.
" " Strychnine Citrate..... v. s.
" Chloride..... v. s.
" Citrate..... v. s.
" Hypophosphite..... sp. s.
" Lactate..... 40
" Phosphate (scales)... v. s.
" Pyrophosphate (scales)..... v. s.
" Sulphate..... 1.8
Lead Acetate..... 1.8
" Nitrate..... 2
Lime, Caustic..... 750
" Chloride (Bleaching) Powder..... 20
Lithium Benzoate..... 4
" Bromide..... v. s.
" Carbonate 150
" Citrate,..... 5.5
" Salicylate..... v. s.
Magnesium Chloride..... 1
" Sulphate 0.8
" Sulphite..... 20
Manganese Sulphate..... 0.7
Mercury Bichloride 16
" Cyanide..... 12.8
Morphine 1000
" Acetate..... 12
Morphine Hydrochlorate... 20
" Sulphate..... 24
Naphthalin..... ins.
Naphthol (Beta)..... 1000
Phenacetin ..... sp. s.
Physostigmine (Eserine)..
" Salicylate.. 130
" Sulphate... v. s.
Potassa (caustic)..... 0.5
Potassium Acetate..... 0.4
" and Sod. Tartrate..... 2.5
" Bicarbonate.... 3.2
" Bichromate..... 10
" Binoxalate..... 25
" Bitartrate..... 210
" Bromide..... 1.6
" Carbonate..... 1
" Chlorate..... 16.5
" Chloride..... 3
" Citrate 0.6
" Cyanide..... 2
" Ferricyanide.... 2.5
" Ferrocyanide... 4
" Hypophosphite.. 0.6
" Iodide..... 0.8
" Nitrate..... 4
" Permanganate.. 20
" Sulphate 9
" Sulphite..... 4
" Tartrate..... 0.7
Quinidine..... 2000
" Sulphate..... 100
Quinine anhydrous 1960
" hydrated..... 1600
" Bisulphate..... 10
" Hydrobromate ... 16
" Hydrochlorate.... 34
" Lactate..... 4

Quinine Sulphate	740	Sodium Pyrophosphate	12
" Valerianate	100	" Salicylate	1.5
" and Urea Hydrochlorate	1	" Sulphate	2.8
Resorcin	0.7	" Sulphite	4
Saccharin	250	" Sulphocarbolate	5
Salicin	28	Sozo-iodol (Sodium salt)	14
Salol	sp. s.	Sparteine Sulphate	—
Silver Nitrate	0.8	Strychnine	6700
Soda (caustic)	1.7	" Acetate	60
Sodium (Acetate)	3	" Sulphate	10
" Arseniate	4	Sugar (cane)	0.5
" Benzoate	1.8	" of Milk	7
" Bicarbonate	12	Sulphonal	550
" Bisulphite	4	Terpin Hydrate	sp. s.
" Borate	16	Thalline Sulphate	7
" Bromide	1.2	" Tartrate	10
" Carbonate	1.6	Thymol	1200
" Chlorate	1.1	Urethan	v. s.
" Chloride	2.8	Zinc Acetate	3
" Hypophosphite	1	" Bromide	v. s.
" Hyposulphite	1.5	" Chloride	v. s.
" Iodide	0.6	" Iodide	v. s.
" Nitrate	1.3	" Sulphate	0.6
" Phosphate	6	" Sulphocarbolate	2

356. Table showing the Percentage of anhydrous Base in the principal Alkaloidal Salts.

Note.—The figure placed behind each salt indicates the percentage of anhydrous alkaloid contained therein. For instance, Quinine Sulphate, 74.3, means that 100 parts of commercial crystallized sulphate of quinine contain 74.3 parts of pure anhydrous quinine.

Aconitine Nitrate, cryst.[1]	91.1
Apomorphine Hydrochlorate,	87.9
Atropine Sulphate,	85.5
Cinchonidine Sulphate,	76.5
Cinchonine Sulphate,	82.1

Cocaine Hydrochlorate, anhydrous, - -	89.2
" " " hydrated[2]) - -	80.7
Codeine Hydrochlorate, - - - -	80.4
" Phosphate, - - - - -	70.5
Digitaline,[3]) - - - - - -	—
Homatropine Hydrobromate - - -	77.3
Hyoscyamine Sulphate, amorphous[4]) - -	85.5
Morphine Acetate, - - - - -	71.4
" Hydrochlorate, - - - -	75.9
" Sulphate, - - - - -	75.2
Physostigmine Salicylate,[5]) - - -	66.6
" Sulphate,[5]) - - - -	84.9
Pilocarpine Hydrochlorate, - - -	85.1
Quinidine Sulphate, - - - - -	82.9
Quinine Acetate, - - - - -	84.3
" Bisulphate, - - - - -	59.1
" and Iron Citrate, - - - -	12.0
" Hydrate, - - - - -	85.7
" Hydrobromate, - - - -	73.5
" Hydrochlorate, - - - -	81.7
" and Urea, Hydrochlorate, - -	69.0
" Lactate, - - - - -	78.2
" Salicylate, - - - - -	68.8
Quinine Sulphate, - - - - -	74.3
" Tannate, - - - -	about 20.0
" Valerianate, - - - - -	72.9
Strychnine Acetate, - - - - -	84.7
" and Iron, Citrate, - - -	1.0
" Sulphate, - - - - -	74.4

1) Compare Note to No. 184.

2) Hydrochlorate of cocaine, when crystallized from a watery solution, contains 2 molecules of water. The salt which is now usually supplied by manufacturers, is anhydrous.

3) This is quoted here only for the purpose of attaching some remarks of practical interest. Digitalis contains a number of different principles, which it is quite difficult to separate, and many of which have at one time or another been designated by their discoverers as "digitaline." Different processes, even with only slight modifications of solvents, produce varying mixtures of principles. In prescribing *digitaline*, therefore, the physician should specify the particular kind wanted, either by mentioning the manufacturer (Merck, etc,) or other authority, according to which it is prepared. (For instance: Digitaline, amorphous, *Code.c*; or Digitaline, crystallized, *Code.c.*) Merck's Digitaline (Digitalinum purum pulveratum, so-called "German Digitaline") consists principally of digitalein, is soluble in water (and therefore has no cumulative effect) and alcohol, but insoluble in ether and chloroform. Its average dose is 1-60th to 1-30th of a grain. The crystallized Digitaline of the French Pharmacopœia is that prepared after Homolle's process, but the additional purification by chloroform makes it about twice as strong. It is almost insoluble in water (and therefore acts cumulatively) and in ether, but soluble in chloroform, and less so in alcohol. Its dose is about 1-120th to 1-60th of a grain.

If Digitaline is prescribed without further specification, the so-called German Digitaline (Digitalinum purum pulveratum) of Merck will be supplied in this Department.

None of the principles extracted from Digitalis fully represent the crude drug in all its properties.

4) Compare Note to No. 194.

5) Notice the great difference in the percentage of alkaloid in these two salts. Compare also Note to No. 196.

357. Transfusion Fluid.

a. *Billroth's.*

Sodium Phosphate	gr.	3
Sodium Carbonate	"	20
Ammonium Carbonate	"	20
Sodium Chloride	"	60
Alcohol	℥	160
Distilled Water, enough to make	fl. oz.	20

b. *Little's.*

Sodium Phosphate	gr. 3
Potassium Chloride	" 6
Sodium Carbonate	" 40
Sodium Chloride	" 60
Distilled Water enough to make	fl. oz. 20

c. *Walter's.*

Sodium Bicarbonate	gr. 6
Calcium Chloride	" 6
Potassium Chloride	" 6
Sodium Chloride	" 480
Distilled Water enough to make	fl. oz. 8

For use, dilute 1 fl. oz. of this solution with water at 120° F., so as to make 16 fl. oz.

358. Volkmann's Antiseptic Liquid.

Thymol	1 part.
Alcohol	10 parts.
Glycerin	20 "
Water	100 "

Dissolve the thymol in the alcohol, add the glycerin, and lastly, the water.

Used as an antiseptic on wounds and dressings.

359. Wickersheimer's Fluid.

	I.	II.
Arsenious Acid	60	50 grains.
Chloride of Sodium	5	4 drachms.
Sulphate of Potassium	13	10 "
Nitrate of Potassium	100	70 grains.
Carbonate of Potassium	80	60 "
Glycerin	35	35 fl. oz.
Methylic Alcohol	6	6 fl. oz.
Water, enough to make	128	128 fl. oz.

Prepare a solution after either of these formulæ, according to the object for which the solution is wanted.

No. I. is intended for preserving bodies or anatomical specimens by *injection*, and No. II, which is weaker, is used for preserving them by *immersion*.

Note.—The original formula was purchased from the inventor and patentee by the Prussian Government, and then officially published. It contained several incompatible ingredients, and has gradually been modified to the composition given above.

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LIST OF ABBREVIATIONS.

Bell. Hosp.—Bellevue Hospital, foot of 26th Street, New York City. (Including Emergency Hospital, No. 223 East 26th Street.)

Bureau O. D. P.—Bureau of Medical and Surgical Relief for the Out-Door Poor. (Bellevue Dispensary.)

Char. Hosp.—Charity Hospital, Blackwell's Island. (Including Maternity Hospital, and Epileptic and Paralytic Hospital.)

Gouv. Hosp.—Gouverneur Hospital, Gouverneur Slip, New York City. (Reception Hospital and Dispensary.)

Hart's I. Hosp.—Hart's Island Hospital, Hart's Island, Long Island Sound.

Inf. Hosp.—Infant's Hospital, Randall's Island.

Ins. As.—Insane Asylum, Ward's Island.

99th Str. Hosp.—Reception Hospital, West 99th Street, near 10th Avenue. (Including Bloomingdale Dispensary.)

The other Institutions, which are not specially quoted here, but which use the preparations contained in the Formulary promiscuously, or only occasionally, are the following :

Randall's Island Hospital, Randall's Island.—Homœopathic Hospital, Ward's Island.—Almshouse (including Hospital for Incurables and Asylum for Indigent Blind), Blackwell's Island.—Lunatic Asylum, Blackwell's Island.—Branch Lunatic Asylum on Hart's Island.—Harlem Hospital, foot of East 120th Street (including Dispensary) —Bureau of Medical and Surgical Relief for the Out-Door Poor of the 23rd and 24th Wards, at 702 Westchester Avenue (Westchester Avenue Dispensary).—City Prison (Tombs,) Centre and Franklin Streets. —Second District Prison, (Jefferson Market), Greenwich Avenue and West 10th Street.—Third District Prison, (Essex Market), Essex Street, between Grand and Broome Streets.—Fourth District Prison, 151 East 57th Street.—Fifth District Prison, 129th Street and 4th Avenue.—Sixth District Prison, North 3rd Avenue, Corner 158th Street.—Penitentiary, Blackwell's Island.—Work-house, Blackwell's Island, and several minor institutions or bureaus.

CORRECTIONS.

Page 12, Form 36, in title, read :

" Asthmate" for " Asthma."